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ABSTRACT

This document accompanies a narrative volume that reports a study of Pennsylvania's vocational education system. It contains the instrumentation, participant lists, and all other supporting documentation. Chapter 1 is a data analysis of the open-ended interviews and second Delphi questionnaire that were used to determine the strengths and weaknesses of vocational-technical education in Pennsylvania. Results of interviews with 179 individuals are included. The analyses are organized by the five general areas of concern that emerged: governance and administration; leadership; research, planning, evaluation, and professional development; program development; and curriculum. Data are provided in 44 tables. Chapter 2 provides comprehensive policy Delphi results. Chapter 3 contains information from other states, including nine tables with comparative data; a report on Illinois' movement to regional systems under the Education for Employment Title; a report on outcome-based education in Minnesota; and a report on an evolutionary approach in Ohio. Chapter 4 provides the interview questions, vocational education study questionnaire, and second-round policy Delphi questionnaire. Chapters 5 through 9 contain the mailing list for the Delphi surveys; list of interviewees; policy Delphi meeting minutes and participant list; external review panel meeting minutes; and calendar of activities. (YLB)

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Volume II: Data and Instrumentation

Final Report

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- short- and long-range planning for education and training agencies
- approaches to enhancing economic development and job creation

The Pennsylvania Report:
A New Agenda for
Vocational-Technical Education
Volume II: Data and Instrumentation

Final Report

Paula K. Kurth

and

Gary M. Grossman

Center on Education and Training for Employment
The Ohio State University
1900 Kenny Road
Columbus, Ohio 43210-1090

August 1989

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For further information contact:

Program Information Office
Center on Education and Training for Employment
The Ohio State University
1900 Kenny Road
Columbus, Ohio 43210-1090

Call toll free 800-848-4815 or 614-292-4353

FAX: 614-292-1260

TELEX: 9102505950

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PREFACE

This report is developed as two documents. The first is Volume I, subtitled "Narrative" and includes the presentation of the logic and basic thrust of the report. It concludes with a set of sixteen recommendations for consideration by the educational leadership of Pennsylvania. The additional document, Volume II, provides additional documentation for the report and recommendations and contains the instrumentation participant lists and all other supporting documentation.

CHAPTER 1

DATA ANALYSIS

To determine the strength and weakness of vocational-technical education in Pennsylvania, open-ended interviews as well as written questionnaires were used to gather opinions. In analyzing the comments and responses, general areas of concern emerged. These provided the cores of the recommendations that were ultimately formulated. Presented below are results of the analysis of the interviews and second Delphi questionnaire.

One hundred seventy-nine individuals were interviewed. Table 1 presents the breakout by group, number, and percentage. The percentage adds to more than 100 because of rounding.

Governance and Administration

The methods by which an educational system is governed and administered profoundly affects what happens in the classroom, including who is in the classroom. Early in the open-ended interview process, the issue of local governance and administration of AVTSs was raised. Not surprisingly, AVTS and vocational directors were most aware of the problem, percentage-wise, followed by state-level staff.

TABLE 1

INTERVIEWEE CLASSIFICATIONS

Group	Number	Percentage
State-level staff	34	19.0
Teacher educators and 4-year college personnel	23	12.8
Community college, branch campus, and proprietary schools	27	15.1
AVTS and vocational directors	15	8.4
Employers, advisory councils/committees, business, and industry	18	10.1
Secondary school principals, superintendents, and supervisors	9	5.0
Intermediate unit personnel	3	1.7
Vocational teachers, supervisors, and central office staff	28	15.6
PIC staff	2	1.1
Economic development staff	2	1.1
Chamber of Commerce staff	3	1.7
Guidance counselors	4	2.2
Other	11	6.1
TOTALS	179	101.6

TABLE 2

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH LOCAL GOVERNANCE OF VOCATIONAL-TECHNICAL EDUCATION

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	26	76.5
Teacher educators and other 4-year college personnel	13	56.5
Community college, branch campus, and proprietary school personnel	13	48.1
AVTS and vocational directors	13	86.7
Employers, advisory councils/committees members, business, and industry personnel	2	11.1
Secondary school principals, superintendents, and supervisors	5	55.6
Intermediate unit personnel	3	100.0
Other	8	72.7
TOTALS	83	46.4

Questions regarding some aspects of local governance and administration were placed on the second-round Delphi questionnaire. Those questions and the summarized responses follow (tables 3-7).

TABLE 3

VOCATIONAL-TECHNICAL EDUCATION ADMINISTRATOR QUALIFICATIONS

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
State and local vocational-technical education administrators should have in-depth knowledge of vocational-technical education acquired through a combination of formal preparation and experience.	97%	3%	1%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	78%	5%	17%

TABLE 4

LOCAL ADMINISTRATION

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
The area vocational-technical school should have its own elected school board which appoints its own chief school officer.	34%	39%	28%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	28%	34%	38%

TABLE 5

COORDINATION AND ARTICULATION

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
The state education agency should provide leadership and technical assistance for local public and proprietary education institutions to develop plans for coordinated and articulated vocational-technical education programs at all levels. Such plans would include individual and community needs assessment, specification of program offerers, and program scope and sequence.	88%	9%	3%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	76%	11%	14%

TABLE 6

AVTS FUNDING

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
Area vocational-technical school funding should be based on participating school enrollment regardless of the number of students the participating school sends to the area vocational-technical school.	48%	30%	22%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	38%	31%	31%

TABLE 7

STATE SUBSIDY FOR VOCATIONAL-TECHNICAL ENROLLMENTS

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
The state should provide double funding for secondary students attending an area vocational-technical school (i.e., if the subsidy for each secondary student is 1.2, then the subsidy for a student attending an area vocational-technical school should be 2.4).	55%	21%	24%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	43%	19%	38%

A second issue raised in interviews with regard to governance and administration was related to the position occupied by the state director for vocational-technical education. Over 44 percent of the interviewees mentioned this as a problem. The breakdown from the open-ended interviews is presented in table 8. The related question from the second-round Delphi questionnaire appears in table 9.

TABLE 8

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH THE ADMINISTRATIVE POSITION OF THE STATE DIRECTOR OF VOCATIONAL-TECHNICAL EDUCATION

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	21	61.8
Teacher educators and other 4-year college personnel	15	65.2
Community college, branch campus, and proprietary school personnel	7	25.9
AVTS and vocational directors	15	100.0
Secondary school principals, superintendents, and supervisors	6	10.7
Intermediate unit personnel	2	66.7
Vocational teachers, supervisors, and central office staff	3	10.7
PIC staff	1	50.0
Economic development staff	1	50.0
Other	8	72.8
TOTALS	79	44.1

TABLE 9

COMMISSIONER OF VOCATIONAL-TECHNICAL EDUCATION

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
The position of chief administrator for vocational-technical education in the state education agency should be elevated to the level of commissioner.	41%	28%	32%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	42%	19%	39%

The functioning of the regional offices was the third issue raised under governance and administration. Although only 11.2 percent of those interviewed mentioned this aspect as a problem, it was obvious that the regional offices were not being used to their greatest advantage. Tables 10 and 11 present data from the interviews and the questionnaire.

TABLE 10

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH THE OPERATION/FUNCTION OF THE REGIONAL OFFICES

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	6	26.5
Teacher educators and other 4-year college personnel	3	13.0
Community college, branch campus, and proprietary school personnel	2	7.4
AVTS and vocational directors	2	13.3
Secondary school principals, superintendents, and supervisors	1	11.1
Intermediate unit personnel	3	100.0
Vocational teachers, supervisors, and central office staff	1	3.6
Other	2	18.1
TOTALS	20	11.2

TABLE 11

CLOSING OF REGIONAL OFFICES

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
The regional vocational-technical education offices should be closed and current personnel placed in the intermediate units.	18%	52%	31%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	29%	36%	33%

Leadership

Leadership at the state level in Pennsylvania begins with the Secretary of Education and the State Board for Vocational and Technical Education. The State Board is a unique position in that it sets the pace for others to follow. Table 12 indicates the level of concern expressed by interviewees.

Other issues raised dealt with the communication of the purpose of vocational-technical education and strategic planning for facilities and equipment (tables 13-15) and relationships with business, industry, and labor (tables 16-18).

TABLE 12

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH THE LEVEL OF ATTENTION AND SUPPORT OF THE STATE BOARD FOR VOCATIONAL-TECHNICAL EDUCATION

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	9	26.5
Teacher educators and other 4-year college personnel	6	26.1
Community college, branch campus, and proprietary school personnel	2	7.4
AVTS and vocational directors	5	33.3
Secondary school principals, superintendents, and supervisors	2	22.2
Other	13	27.2
TOTALS	27	15.1

TABLE 13

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH FACILITIES AND EQUIPMENT AND THE PUBLIC'S AWARENESS OF VOCATIONAL-TECHNICAL EDUCATION

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	22	64.7
Teacher educators and other 4-year college personnel	3	13.0
Community college, branch campus, and proprietary school personnel	10	37.0
AVTS and vocational directors	14	93.3
Employers, advisory councils/committees members, business, and industry personnel	3	16.7
Secondary school principals, superintendents, and supervisors	7	77.8
Intermediate unit personnel	3	100.0
Vocational teachers, supervisors, and central office staff	2	7.1
Economic development agency staff	1	50.0
Chamber of Commerce staff	1	33.3
Guidance counselors	2	50.0
Other	10	90.9
TOTALS	78	43.6

TABLE 14

SYSTEMS FOR FUNDING NEW AND REPLACING OLD EQUIPMENT

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
The state should develop a system for vocational-technical education equipment replacement and a system for funding needed equipment.	92%	6%	4%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	69%	12%	19%

TABLE 15

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH THE LEVEL OF PUBLIC AWARENESS OF THE IMPLICATIONS OF VOCATIONAL-TECHNICAL EDUCATION ON THE EDUCATION OF INDIVIDUALS AND ON THE ECONOMY

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	8	23.5
Teacher educators and other 4-year college personnel	4	17.4
Community college, branch campus, and proprietary school personnel	4	14.8
AVTS and vocational directors	10	66.7
Employers, advisory councils/committees members, business, and industry personnel	3	16.7
Secondary school principals, superintendents, and supervisors	2	22.2
Chamber of Commerce staff	1	33.3
Guidance counselors	1	25.0
Other	3	27.3
TOTALS	36	20.1

TABLE 16

DEVELOPMENT AND COMMUNICATION OF VISION OF VOCATIONAL-TECHNICAL EDUCATION

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
The state education agency should provide leadership for and coordinate the development of a long-range vision of what vocational-technical education is and what it should be and communicate that vision to all publics.	97%	1%	3%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	79%	4%	16%

TABLE 17

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH THE LEVEL OF INVOLVEMENT OF BUSINESS, INDUSTRY, AND LABOR IN VOCATIONAL-TECHNICAL EDUCATION

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	11	32.4
Teacher educators and other 4-year college personnel	4	17.4
Community college, branch campus, and proprietary school personnel	8	30.0
AVTS and vocational directors	7	46.7
Employers, advisory councils/committees members, business, and industry personnel	4	22.2
Secondary school principals, superintendents, and supervisors	2	22.2
Intermediate unit personnel	1	33.3
Vocational teachers, supervisors, and central office staff	1	3.6
Economic development staff	1	50.0
Chamber of Commerce staff	1	33.3
Other	6	54.5
TOTALS	46	25.7

TABLE 18

GUARANTEED PLACEMENT OF GRADUATES

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
Vocational educators should seek agreements with business and industry officials who would guarantee placement of vocational-technical education graduates.	82%	17%	2%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	48%	38%	14%

Although the desirability of guaranteed placement of vocational-technical graduates was high, the feasibility of such an event occurring was believed to be very low. Therefore, this was dropped from the recommendations.

Research, Planning, Evaluation, and Professional Development

During the interviews, a lack of systematic research, development, dissemination, and evaluation was indicated. Table 19 presents statistical results from the interviews.

The Delphi questionnaire responses show strong support for this issue. Tables 20 and 21 provide the relevant data.

TABLE 19

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH THE CURRENT RESEARCH, DEVELOPMENT, AND DISSEMINATION ACTIVITIES IN VOCATIONAL-TECHNICAL EDUCATION

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	16	47.1
Teacher educators and other 4-year college personnel	6	26.1
Community college, branch campus, and proprietary school personnel	4	14.8
AVTS and vocational directors	8	53.3
Employers, advisory councils/committees members, business, and industry personnel	1	5.6
Secondary school principals, superintendents, and supervisors	3	33.3
Intermediate unit personnel	1	33.3
Other	5	45.5
TOTALS	44	24.6

TABLE 20

STATE LEADERSHIP FOR RESEARCH AND DEVELOPMENT

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
Leadership from the state education agency is needed to maintain a cutting-edge emphasis in vocational-technical education curriculum development, research, program planning, program evaluation, and personnel development.	91%	6%	4%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	74%	12%	16%

TABLE 21

RESEARCH AND DEVELOPMENT CENTER

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
The state should establish a research and development center with responsibility for planning and conducting statewide efforts for vocational-technical education in-- o Curriculum Development o Innovative/Exemplary Programs o Personnel Development o Research o Program Planning o Program Evaluation	68%	19%	13%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	65%	16%	19%

Although a large number of interviews did not raise the issue of instructor preparation (see table 22), the issue was included on the second-round Delphi questionnaire because of its currency nationwide and the overall belief that secondary vocational-technical education in Pennsylvania is perceived as "second rate." Table 23 deals with the baccalaureate degree issue (where desirability and feasibility conflict) and table 24 presents opinions related to the update of technical skills.

TABLE 22

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH LEVEL OF VOCATIONAL-TECHNICAL EDUCATION INSTRUCTOR PREPARATION

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	4	11.8
Teacher educators and other 4-year college personnel	8	34.8
Community college, branch campus, and proprietary school personnel	1	3.7
Secondary school principals, superintendents, and supervisors	2	22.2
Guidance counselors	1	25.0
Other	6	54.5
TOTALS	22	12.3

TABLE 23

BACCALAUREATE DEGREE FOR VOCATIONAL-TECHNICAL TEACHERS

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
All beginning vocational-technical education teachers should have a baccalaureate degree.	60%	34%	6%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	31%	60%	10%

TABLE 24

TECHNICAL SKILL UPDATE

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
The state, in cooperation with business and industry, should develop training programs that use the facilities of business and industry to update the technical skills of vocational-technical education teachers.	93%	5%	2%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	76%	11%	13%

The lack of AVTS accrediation was not raised in the open-ended interviews as much of a problem (see table 25); however, the importance of accreditation arises when considering technical institute status for selected AVTSs and also when considering the status perception of secondary vocational-technical education.

TABLE 25

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH LACK OF AVTS ACCREDIATION

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	1	2.9
AVTS and vocational directors	1	6.7
TOTALS	2	1.1

A similar situation exists when considering the issue of labor-market data. Although this was not an issue raised to a significant degree in the open-ended interviews (table 26), it is necessary to have such information in order to conduct program planning.

TABLE 26

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH AVAILABILITY OF COORDINATED LABOR-MARKET DATA

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	7	20.6
Community college, branch campus, and proprietary school personnel	2	7.4
AVTS and vocational directors	2	13.3
Employers, advisory councils/committees members, business, and industry personnel	1	11.1
Other	1	9.1
TOTALS	13	7.3

Program Development

The issue of high technology centers was not frequently raised in the open-ended interviews (see table 27). Therefore, although the issue was considered by the study team to be one into which the Commonwealth should look, the issue did not become a recommendation.

TABLE 27

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH AVAILABILITY OF HIGH TECHNOLOGY EDUCATION

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	5	14.8
Community college, branch campus, and proprietary school personnel	3	11.1
Secondary school principals, superintendents, and supervisors	1	11.1
TOTALS	9	5.0

The most divisive issue raised during the interviews was that of technical institutes; over 32 percent of those interviewed indicated that access to publicly supported, postsecondary vocational-technical education was a problem (table 28). Tables 29-32 present the reactions to four related questions that appeared on the Delphi questionnaire.

TABLE 28

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH ACCESS TO PUBLICLY SUPPORTED POSTSECONDARY VOCATIONAL-TECHNICAL EDUCATION

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	21	61.8
Teacher educators and other 4-year college personnel	8	34.8
Community college, branch campus, and proprietary school personnel	8	29.6
AVTS and vocational directors	10	66.7
Secondary school principals, superintendents, and supervisors	3	33.3
Intermediate unit personnel	2	66.7
Chamber of Commerce staff	1	33.3
Guidance counselors	1	25.0
Other	4	36.4
TOTALS	58	32.4

TABLE 29

AVTS TARGET AUDIENCE

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
Area vocational-technical education schools should place a major focus on adult vocational-technical education rather than secondary vocational-technical education.	23%	69%	8%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	33%	44%	24%

TABLE 30

PROGRAMS FOR NON-HIGH SCHOOL GRADUATES

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
Vocational-technical education needs to develop and offer special programs for those individuals who have dropped out of school.	86%	7%	7%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	69%	10%	21%

TABLE 31

FUNDING FORMULAS

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
The same funding formulas should be applied to community colleges and area vocational-technical schools.	39%	22%	39%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	37%	21%	43%

TABLE 32

AVTSs AS TECHNICAL INSTITUTES

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
All area vocational-technical schools should be designated as technical institutes.	41%	31%	28%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	44%	26%	31%

Curriculum

The curriculum offered to middle/junior and senior high school students is being examined in many states. New York, for example, has revised curriculum and Pittsburgh is eliminating the general education track. However, recommending that the general education track in the secondary schools be eliminated was judged by the study team to be outside the purview of this study. Table 33 presents information regarding this issue as raised in the open-ended interviews; tables 34-44 present results from the Delphi questionnaire.

TABLE 33

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH GENERAL EDUCATION AT THE SECONDARY LEVEL

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	2	5.9
Teacher educators and other 4-year college personnel	3	13.0
Community college, branch campus, and proprietary school personnel	1	3.7
AVTS and vocational directors	3	20.0
Employers, advisory councils/committees members, business, and industry personnel	2	11.1
Secondary school principals, superintendents, and supervisors	1	11.1
Other	3	27.3
TOTALS	15	8.4

TABLE 34

DISCONTINUANCE OF VOCATIONAL-TECHNICAL EDUCATION AT SECONDARY LEVEL

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
Vocational-technical education programs should be discontinued at the secondary level and offered only at the postsecondary level.	15%	81%	29%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	22%	61%	17%

TABLE 35

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH SECONDARY STUDENTS' AWARENESS OF EDUCATIONAL AND CAREER OPTIONS

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	15	44.1
Teacher educators and other 4-year college personnel	9	39.1
Community college, branch campus, and proprietary school personnel	7	25.9
AVTS and vocational directors	8	53.3
Employers, advisory councils/committees members, business, and industry personnel	4	22.2
Secondary school principals, superintendents, and supervisors	7	77.8
Intermediate unit personnel	2	66.7
Economic development staff	1	50.0
Chamber of Commerce staff	1	33.3
Guidance counselors	3	75.0
Other	7	63.6
TOTALS	64	35.8

TABLE 36

CAREER AWARENESS PROGRAMS--SECONDARY LEVEL

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
A career awareness program should be implemented in all school systems.	100%	0%	0%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	84%	3%	13%

TABLE 37

HANDS-ON CAREER DEVELOPMENT COURSE REQUIREMENT

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
Vocational-technical education should be offered as clusters of occupations at the ninth grade and all students should be required to enroll for credit in these combination hands-on career development courses. Students would receive 1 credit for participating in 4 cluster areas that they would choose.	69%	18%	12%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	47%	32%	21%

TABLE 38

EXPLORATORY VOCATIONAL-TECHNICAL PROGRAMS

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
Exploratory vocational-technical education program should be offered at the middle/junior and senior high school levels.	89%	6%	6%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	71%	10%	19%

TABLE 39

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH CURRENT VOCATIONAL-TECHNICAL CURRICULUM IN GRADES 11 AND 12

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	12	35.3
Teacher educators and other 4-year college personnel	7	30.4
Community college, branch campus, and proprietary school personnel	4	14.9
AVTS and vocational directors	5	33.3
Employers, advisory councils/committees members, business, and industry personnel	1	5.6
Intermediate unit personnel	1	33.3
Guidance counselors	1	25.0
Other	4	36.4
TOTALS	35	19.6

TABLE 40

VOCATIONAL-TECHNICAL EDUCATION CLUSTER CURRICULUM

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
Secondary vocational-technical education should be a generalized offering reflecting core clusters and transferable technical knowledge and skills with emphasis on critical thinking and enhancement of basic skills.	58%	29%	13%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	52%	18%	30%

TABLE 41

COMPETENCY-BASED VOCATIONAL-TECHNICAL EDUCATION

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
Vocational-technical education programs should be competency based with no requirements regarding the minimum number of hours to be completed.	62%	30%	8%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	54%	28%	18%

TABLE 42

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH LACK OF COORDINATION OF VOCATIONAL-TECHNICAL AND ACADEMIC SUBJECTS AT THE SECONDARY LEVEL

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	15	44.1
Teacher educators and other 4-year college personnel	8	34.8
Community college, branch campus, and proprietary school personnel	7	25.9
AVTS and vocational directors	5	33.3
Employers, advisory councils/committees members, business, and industry personnel	2	11.1
Secondary school principals, superintendents, and supervisors	1	11.1
Intermediate unit personnel	1	33.3
Vocational teachers, supervisors, and central office staff	1	3.6
Economic development staff	2	100.0
Chamber of Commerce staff	2	66.7
Other	5	45.5
TOTALS	49	27.4

TABLE 43

INTEGRATION OF VOCATIONAL-TECHNICAL AND ACADEMIC CURRICULUMS

Question	Desirable or Very Desirable	Undesirable or Very Undesirable	No Comment
The curriculum offering of the area vocational-technical school should be comprehensive, integrating vocational and academic education.	73%	17%	10%
	Definitely or Possibly Feasible	Definitely or Possibly Unfeasible	No Comment
	54%	28%	17%

TABLE 44

INDIVIDUALS WHO IDENTIFIED A PROBLEM WITH LACK OF EDUCATION AND CAREER GOAL PLANNING

Group	Number Indicating a Problem	Percentage Indicating a Problem
State-level staff	8	23.5
Teacher educators and other 4-year college personnel	3	13.0
Community college, branch campus, and proprietary school personnel	4	14.8
AVTS and vocational directors	4	26.7
Employers, advisory councils/committees members, business, and industry personnel	2	11.1
Secondary school principals, superintendents, and supervisors	3	33.3
Intermediate unit personnel	3	100.0
Guidance counselors	1	25.0
Other	2	18.2
TOTALS	30	16.8

CHAPTER 2

COMPREHENSIVE POLICY DELPHI RESULTS

1. The state education agency should provide leadership for and coordinate the development of a long-range vision of what vocational-technical education is and what it should be and communicate that vision to all publics.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
70%	27%	0%	1%	3%	0%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
50%	29%	4%	0%	3%	13%

2. The state education agency should provide leadership and technical assistance for local public and proprietary education institutions to develop plans for coordinated and articulated vocational-technical education programs at all levels. Such plans would include individual and community needs assessment, specification of program offerers, and program scope and sequence.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
46%	42%	7%	2%	3%	0%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
40%	36%	10%	1%	2%	12%

3. Audits should be conducted by local providers of vocational-technical education programs to determine what happens to students after they leave vocational-technical education programs.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
54%	41%	2%	1%	1%	1%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
50%	34%	2%	1%	1%	13%

4. Leadership from the state education agency is needed to maintain a cutting-edge emphasis in vocational-technical education curriculum development, research, program planning, program evaluation, and personnel development.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
59%	32%	5%	1%	4%	0%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
36%	38%	12%	0%	3%	13%

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*Percentages may not equal 100 due to rounding.

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5. State and local vocational-technical education administrators should have in-depth knowledge of vocational-technical education acquired through a combination of formal preparation and experience.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
68%	29%	3%	0%	1%	0%
Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
50%	28%	5%	0%	4%	13%

6. The position of chief administrator for vocational-technical education in the state education agency should be elevated to the level of commissioner.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
21%	20%	19%	9%	29%	3%
Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
13%	29%	13%	6%	23%	16%

7. The state education agency needs to place more emphasis on and give more visibility to innovative/exemplary vocational-technical education programs.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
38%	47%	4%	3%	5%	3%
Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
38%	41%	0%	1%	4%	16%

8. State leadership and other resources should be provided to local institutions for enhancing the job placement programs and processes.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
37%	46%	7%	1%	8%	2%
Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
27%	38%	7%	1%	12%	15%

9. Vocational educators should seek agreements with business and industry officials who would guarantee placement of vocational-technical education graduates.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
33%	49%	13%	4%	0%	2%
Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
17%	31%	30%	8%	1%	13%

10. The state should develop a system for vocational-technical education equipment replacement and a system for funding needed equipment.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
63%	29%	3%	3%	4%	0%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
31%	38%	9%	3%	4%	15%

11. All beginning vocational-technical education teachers should have a baccalaureate degree.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
27%	33%	24%	10%	1%	5%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
12%	19%	41%	19%	1%	9%

12. The state should establish a research and development center with responsibility for planning and conducting statewide efforts for vocational-technical education in--

- o Curriculum Development
- o Innovative/Exemplary Programs
- o Personnel Development
- o Research
- o Program Planning
- o Program Evaluation

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
43%	25%	11%	8%	9%	4%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
29%	36%	12%	4%	6%	13%

13. The state, in cooperation with business and industry, should develop training programs that use the facilities of business and industry to update the technical skills of vocational-technical education teachers.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
55%	38%	4%	1%	0%	2%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
40%	36%	10%	1%	0%	13%

14. All vocational-technical education personnel should be required to attend an annual statewide conference that is designed to bring together all teachers, administrators, and others interested in and concerned about vocational-technical education for joint as well as concurrent sessions.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
21%	35%	29%	10%	4%	2%
Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
8%	24%	32%	19%	5%	12%

15. All area vocational-technical schools should be designated as technical institutes.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
19%	22%	18%	13%	24%	4%
Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
17%	27%	15%	11%	19%	12%

16. The area vocational-technical school should have its own elected school board which appoints its own chief school officer.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
20%	14%	21%	18%	25%	3%
Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
15%	13%	20%	14%	21%	17%

17. The regional vocational-technical education offices should be closed and current personnel placed in the intermediate units.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
8%	10%	21%	31%	29%	2%
Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
10%	19%	14%	22%	20%	13%

18. The same funding formulas should be applied to community colleges and area vocational-technical schools.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
21%	18%	9%	13%	35%	4%
Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
18%	19%	9%	12%	31%	12%

19. Area vocational-technical school funding should be based on participating school enrollment regardless of the number of students the participating school sends to the area vocational-technical school.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
21%	27%	9%	21%	18%	4%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
20%	18%	13%	18%	16%	15%

20. The state should provide double funding for secondary students attending an area vocational-technical school (i.e., if the subsidy for each secondary student is 1.2, then the subsidy for a student attending an area vocational-technical school should be 2.4).

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
33%	22%	12%	9%	20%	4%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
20%	23%	12%	7%	17%	21%

21. A career awareness program should be implemented in all school systems.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
87%	13%	0%	0%	0%	0%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
63%	21%	2%	1%	0%	13%

22. Exploratory vocational-technical education programs should be offered at the middle/junior and senior high school levels.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
52%	37%	4%	2%	5%	1%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
38%	33%	10%	0%	4%	15%

23. Vocational-technical education should be offered as clusters of occupations at the ninth grade and all students should be required to enroll for credit in these combination hands-on career development courses. Students would receive 1 credit for participating in 4 cluster areas that they would choose.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
30%	39%	13%	5%	10%	2%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
18%	29%	27%	5%	8%	13%

24. The curriculum offering of the area vocational-technical school should be comprehensive, integrating vocational and academic education.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
33%	40%	13%	4%	6%	4%
Definitely Feasible	**Possibly Feasible**	**Possibly Unfeasible**	**Definitely Unfeasible**	**No Judgment**	**No Response**
24%	30%	22%	6%	4%	13%

25. Where possible, apprenticeship programs should be established in conjunction with vocational-technical education programs.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
52%	41%	2%	0%	4%	1%
Definitely Feasible	**Possibly Feasible**	**Possibly Unfeasible**	**Definitely Unfeasible**	**No Judgment**	**No Response**
34%	37%	7%	3%	5%	14%

26. Secondary vocational-technical education should be a generalized offering reflecting core clusters and transferable technical knowledge and skills with emphasis on critical thinking and enhancement of basic skills.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
31%	27%	20%	9%	13%	0%
Definitely Feasible	**Possibly Feasible**	**Possibly Unfeasible**	**Definitely Unfeasible**	**No Judgment**	**No Response**
20%	32%	14%	4%	12%	18%

27. Vocational-technical education programs should be competency based with no requirements regarding the minimum number of hours to be completed.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
24%	38%	19%	11%	6%	2%
Definitely Feasible	**Possibly Feasible**	**Possibly Unfeasible**	**Definitely Unfeasible**	**No Judgment**	**No Response**
23%	31%	21%	7%	6%	12%

28. Vocational-technical education programs should be discontinued at the secondary level and offered only at the postsecondary level.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
5%	10%	19%	62%	27%	2%
Definitely Feasible	**Possibly Feasible**	**Possibly Unfeasible**	**Definitely Unfeasible**	**No Judgment**	**No Response**
9%	13%	24%	37%	4%	13%

29. Vocational-technical education needs to develop and offer special programs for those individuals who have dropped out of school.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
43%	43%	4%	3%	4%	3%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
33%	36%	7%	3%	4%	17%

30. Area vocational-technical education schools should place a major focus on adult vocational-technical education rather than secondary vocational-technical education.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
10%	13%	43%	26%	4%	4%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
13%	20%	33%	11%	6%	18%

31. The state should expend customized training programs and use the staff, facilities, and equipment of community colleges and area vocational-technical schools.

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment	No Response
35%	44%	4%	4%	13%	1%

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment	No Response
28%	40%	7%	1%	9%	15%

CHAPTER 3

INFORMATION FROM OTHER STATES

TABLE 1

POPULATION OF PENNSYLVANIA AND SELECTED STATES

State	1986	Ages 18-24 1986	Estimated Ages 18-24 2000
Pennsylvania	11,888,000	1,328,000	966,000
Illinois	11,552,000	1,317,000	1,081,000
Michigan	9,145,000	1,083,000	855,000
Minnesota	4,214,000	487,000	412,000
New York	17,772,000	2,034,000	1,594,000
Ohio	10,752,000	1,215,000	962,000

SOURCE: U.S. Bureau of the Census (1987)

TABLE 2

AGE DISTRIBUTION BY PERCENTAGE OF PENNSYLVANIA AND SELECTED STATES

State	0-17	18-24	25-34	35+
Pennsylvania	23.9	10.8	16.8	48.5
Illinois	26.2	11.0	17.9	44.9
Michigan	26.7	11.5	17.8	43.9
Minnesota	26.2	11.1	18.4	44.4
New York	24.5	11.1	16.8	47.6
Ohio	26.3	11.0	17.3	45.5

SOURCE: The Chronicle of Higher Education Almanac (1988)

TABLE 3

POPULATION IN MSAs AND PMSAs OF PENNSYLVANIA AND SELECTED STATES

State	Percentage in MSAs	Percentage in PMSAs
Pennsylvania	30.3	60.1
Illinois	29.7	63.9
Michigan	20.9	50.3
Minnesota	54.5	0.0
New York	16.8	70.7
Ohio	38.0	41.4

SOURCE: U.S. Bureau of the Census (1987)

TABLE 4

RACIAL/ETHNIC DISTRIBUTION BY PERCENTAGE OF PENNSYLVANIA AND SELECTED STATES

State	American Indian	Asian	Black	White	Other and Unknown	Hispanic (may be any race)
Pennsylvania	0.1	0.6	8.8	89.9	0.6	1.3
Illinois	0.2	1.5	14.7	81.1	2.6	5.6
Michigan	0.5	0.7	12.9	85.2	0.7	1.8
Minnesota	0.9	0.8	1.3	96.7	0.3	0.8
New York	0.3	1.9	13.7	79.9	4.3	9.5
Ohio	0.1	0.5	10.0	89.0	0.4	1.1

SOURCE: The Chronicle of Higher Education Almanac (1988)

TABLE 5

EDUCATIONAL ATTAINMENT OF ADULTS BY PERCENTAGE OF PENNSYLVANIA AND SELECTED STATES

State	4 Years High School	1-3 Years College	4 Years College
Pennsylvania	64.7	24.3	13.6
Illinois	66.5	31.4	16.2
Michigan	68.0	30.0	14.3
Minnesota	73.1	34.5	17.4
New York	66.3	32.2	17.9
Ohio	67.0	26.5	13.7

SOURCE: The Chronicle of Higher Education Almanac (1988)

TABLE 6

INCOME OF PENNSYLVANIA AND SELECTED STATES

State	Median Family Income 1979	Percentage of Population Below Poverty Level 1979
Pennsylvania	19,995	10.5
Illinois	22,746	11.0
Michigan	22,107	10.4
Minnesota	21,185	9.5
New York	20,180	13.4
Ohio	20,909	10.3

SOURCE: U.S. Bureau of the Census (1987)

TABLE 7

EMPLOYMENT IN NONAGRICULTURAL ESTABLISHMENTS BY PERCENTAGE OF PENNSYLVANIA AND SELECTED STATES

State	Population Age 18+ Working in Nonagricultural Establishments 1986	Population Age 18-64 1986
Pennsylvania	53.1	51.7
Illinois	56.3	61.5
Michigan	54.5	61.6
Minnesota	60.9	61.2
New York	59.0	62.5
Ohio	56.6	61.2

SOURCE: U.S. Bureau of the Census (1987)

TABLE 8

STATE AND LOCAL GOVERNMENT FINANCES OF PENNSYLVANIA AND SELECTED STATES

State	General Revenue 1985		Outstanding Debt 1985		Direct General Expenditures 1985	
	Total	Per Capita	Total	Per Capita	Total	Per Capita
Pennsylvania	27,163,000	2,292	25,197,000	2,126	24,040,000	2,028
Illinois	27,399,000	2,375	21,709,000	1,882	25,067,000	2,173
Michigan	24,491,000	2,695	15,214,000	1,674	22,705,000	2,498
Minnesota	13,023,000	3,106	13,959,000	3,329	11,918,000	2,842
New York	64,568,000	3,631	62,454,000	3,512	59,455,000	3,343
Ohio	24,229,000	2,255	16,642,000	1,549	22,781,000	2,120

SOURCE: U.S. Bureau of the Census (1987)

TABLE 9

EDUCATIONAL EXPENDITURES OF PENNSYLVANIA AND SELECTED STATES

State	Total Elementary and Secondary Education Expenditure 1987	Elementary and Secondary Education Expenditure per Student 1987	Public Institutions of Higher Education Appropriation per FTE 1987	Number of School District Governments 1987
Pennsylvania	9,394,000	4,752	3,825	517
Illinois	7,653,000	3,980	3,567	1,029
Michigan	6,620,000	3,954	3,631	590
Minnesota	3,191,000	4,241	3,854	441
New York	15,464,000	6,299	5,852	722
Ohio	7,435,000	3,769	3,194	621

SOURCE: U.S. Bureau of the Census (1987)

Illinois Vocational Education: A Movement to Regional Systems under the Education for Employment Title

Setting/Factors Involved in Reorganization

Like other Midwest states, Illinois has suffered a tremendous loss of heavy manufacturing industry over the last decade. The state is highly diverse. Chicago is highly urbanized with a high-technology corridor developing rapidly around Interstate Highway 80. But, outside of Chicago, Illinois is largely rural with small pockets of population. It is difficult for one system to meet the needs of the population extremes. Prior to the Education for Employment policy adoption in 1984, 12 state consultants worked with 750 school districts, each with its own vocational education plan, and 39 community colleges. The state needed a system that could respond to diversity and maximize resources. The Education for Employment plan called for the state to organize in regional consortia, requiring school districts to function in a consortium to receive vocational education funds.

Purpose/Goals

Illinois' vocational education system, developed on an agricultural and industrial base, needed to be transformed for an information-processing base. Under the traditional system, aside from the vocational education being divided into 750 districts, teachers and programs were out of touch with industry needs or requirements, and equipment was outmoded. Improvements were aimed at making better use of human, financial, and capital resources at both the secondary and postsecondary levels.

of control formed under district joint education agreements. State guidelines for joint agreements identified broad areas to be covered (e.g., administration, decision-making process, financial operations, process for withdrawal and deposition of joint ownership) but specific details were left to the participating districts.

Articulation agreements between secondary and postsecondary institutions were required in each region as a condition for funding. In the third year of the planning process, each community college was given $20,000 to use in forming articulation agreements. A Student Services Committee is required for each of the regions and is comprised of representatives from secondary guidance and counseling and special education; the special needs and student services coordinators from the postsecondary institutions; and state agency representatives from such entities as vocational education, vocational rehabilitation, and JTPA. In addition, each region is required to have a regional advisory committee.

Area Vocational Technical Centers comprise another secondary delivery concept to provide high-cost, low-incident programs to a number of cooperating school districts. Many of the programs in the AVTCs fell into trouble due to declining enrollments. In addition, the AVTCs had no revenue source independent of the participating districts. Employment for Education took a similar organizational concept--but without brick and mortar money--and blanketed the state with the 61 regional systems.

Funding

Illinois, at the time of the survey, was in the process of trying to get an income tax measure passed but to many, passage seemed doubtful. Prospects also seemed dim for increased federal funding for vocational education.

Funding for vocational education falls into five broad categories. Disadvantaged and handicapped, equipment, and sex equity thrusts are all funded from Carl C. Perkins monies; Quality Assistance Money comes from the state for staff development, and curriculum development; and administrative funds come from the state. Funds are distributed on a regional basis for enhanced programmatic activity rather than scattering them among the high schools as under the old system. Planning for the 61 regions was supported by $3 million per year. Initially, the money continued to go to the schools, but in 1988 the money began flowing to the regions.

Faculty Credentialling/Professional Development

In 1988, Illinois was involved extensively in new qualifications for teacher endorsement (credentialling). The state traditionally required 24 semester hours in industrial instruction, 8 semester hours in a unit shop, and 2,000 hours of work experience in an occupational area for instructors. Instructors could be provisionally certified with 2,000 hours work experience in any occupational area, and 60 hours of coursework beyond a high school diploma. Temporary provisional certification required 8,000 hours work experience in any occupational area, no hours beyond the high

The first phase of a 3-year planning process was begun July 1, 1985, the end product being the organization of vocational education into regional systems. Regional organization would allow the system to be aware of and address both national and local market needs. The 750 districts and 39 community colleges were organized into 61 regional systems. Task lists were developed for stable and emerging occupations and were verified by industries/businesses and educators to determine skills needed for given occupations. The end goal was to educate students for occupations that will be available and with skills and attitudes and work habits that business and industry want. The task lists provided the basis for a competency-based instructional format.

Attitudes

Although vocational education is regarded as an important component of the educational system, there is still a stigma attached, particularly at the secondary level. For most students, going to college is still the American dream and there is a general feeling that vocational education is inferior to academic education--that comprehensive high schools should have vocational education, but for "other" people's children. Many parents lack information about vocational education and view it as a program for "can'ts" and "won'ts."

The idea that vocational education is for those who cannot go on to college is increasing as academic requirements for college entrance increase. Counselors advocate/advise that the college preparatory curriculum be tightly adhered to in order to ensure that students meet the college entrance requirements upon graduation. Some college bound students take a few vocational education courses (e.g., computer keyboarding, accounting) to embellish their college prep skills (parents have not traditionally seen courses such as accounting and keyboarding/data processing as vocational). However, some students feel that vocational courses on the transcript might actually hurt their chances for acceptance into college.

Structure/Governance

The Illinois education system is operated with three boards. The State Board of Education is solely responsible for secondary vocational education, and funds the community colleges directly for their participation in secondary vocational education. The review process for community college participation in vocational education is the responsibility of the Community College Board, which operates under the Higher Education Board.

The Assistant Superintendent for Adult, Vocational, and Technical Education reports to the Associate Superintendent for Educational Programs who is responsible to the State Superintendent of Education. District participation in one of the 61 regional Education for Employment systems is required for receiving state funds. Each of nine regional vocational administrators are responsible for approving and evaluating regional programs over a given part of the state. In addition, each region is required to have a regional advisory committee. The regional systems themselves are managed by System Directors who report to local boards school diploma to start, but 3 semester hours per year to maintain.

Many teachers are provisionally certified in Illinois in order to teach, and temporary and provisional certification have become big issues. With Education for Employment, credentialling requirements have become more stringent, and designed to coincide more specifically with program areas. For example, requirements in Agriculture are 9 semester hours in the occupational area, 12 hours of core content, plus a methods course.

System directors under the new system are required to have 2,000 hours of work experience plus administrative certification. Since there were only 61 system director positions to be filled under Education for Employment, the state adhered stringently to the formal requirements. A problem in finding highly qualified people from vocational education to fill the system director positions, however, was that they were offered no guarantees to fall back on in case their new positions did not work out.

For professional development, a state council comprised of representatives from nine university councils submit an annual plan to the state to respond to preservice and inservice needs of secondary and postsecondary instructors. Instruction is provided by the teacher education institutions, and some community colleges offer summer workshops. About $3 million per year are distributed to the regions through the Quality Assistance Plan for curriculum renewal and staff development. Distribution is made through a noncompetitive application process based on the previous year's reimbursement from the state. In addition, the state legislature appropriates money for the Vocational Instruction Practicum, a program that provides teachers up to $2,000 for 6-8 weeks of time in private industry to update skills.

Instructional Process

Curriculum development under the Education for Employment plan began with the development of 125 task lists to conform with the 125 occupations taught in the system. The task lists were developed initially by the state using a DACUM process, drawing on a number of sources including information gathered from other states. Statewide task lists were disseminated to private sector employees in the occupational area and to teachers in the regions for verification. The detailed task lists were sold as a communication mechanism. Teachers were working together for the first time to look at tasks and where they were being taught. Teachers are currently being oriented in the new curricula.

A delivery matrix will be used as a tool for administrators to identify program delivery in the state. A Vocational Task Management System will help teachers account for and document the tasks students acquire in courses. It will also aid in secondary to postsecondary articulation.

The task lists are generally seen as helping the system move toward competency-based instruction. The state has also relaxed hour requirements to allow more flexibility in competency-based course approaches. The state maintained, however, its requirement for at least two credits at the junior-senior level in a program sequence plus an orientation component at the freshman-sophomore level.

The Illinois Board of Higher Education mandated higher academic requirements for all freshmen entering universities in 1993. Counselors, afraid of facing liability, are counseling almost all students into college preparatory courses, and as a result vocational education has been facing declining enrollments. Illinois is experimenting with and now field testing the Applied Basics Curriculum developed by a consortium of states in Association with the Agency for Instructional Technology. The curriculum is taught variously by vocational education and academic instructors. Some schools are also experimenting with the Principles of Technology Curriculum developed by the Center for Occupational Research and Development (CORD).

Some respondents see the emphasis on articulation between secondary and postsecondary institutions as moving the high schools toward competency-based instruction. Community colleges, in arriving at articulation agreements with different schools, are faced with widely varying skill levels and competencies of incoming students. They, in turn, are reducing requirements for their courses to competence mastery. The problem at the high school level in moving to competency-based instruction is arriving at a funding formula.

Strengths and Weaknesses

There is wide agreement that vocational education in Illinois has benefitted by pulling the regions together in a systems approach. Strengths of the approach are identified as follows:

- The community has come together in a closer working relationship--business and industry in particular are working more closely with education.
- Both teacher and administrator barriers between secondary and postsecondary levels--created both by geographic distance and institutional focus--have been greatly reduced, resulting in greater communication and mutual support.
- People involved have a better feel for the total educational process.
- The curriculum is being updated and made more relevant--2+2 curricula are being adopted; more choices and options are being generated in program areas because of access to business/industry and other schools; movement toward a competency-based structure has been moved forward by identifying common course titles and common core curricula.
- Equipment, though inadequate, can be better used through coordination.
- Small schools are relieved of part of the administrative burden, and have less paper work.

There also seems to be fairly wide agreement on the major weaknesses in the reorganization. Those mentioned are as follows:

- Incentives rather than mandated change might have been more effective. The moment changes became a requirement, some schools formed battle lines. Districts would have felt better if they had been drawn to change by incentives.
- The state could have been less detailed in its directives, leaving more decisions to the local level. Too much time was spent in detailed meetings.

- The communication process needed simplifying. A single message being communicated by 12 consultants to 61 regions across various layers of administration tended to become garbled before reaching its final destination.

- Organization and mapping could have been simplified, and administrative costs decreased by making Education for Employment (vocational education) regions coincide with the community college districts--61 regions were created and there are 39 community college districts.

- More long range planning appears to be needed. There have been some complaints that directives were often changed in midstream giving the impression that state staff "were flying by the seat of their pants."

Vocational Education Transition in Minnesota: Toward Outcome-Based Education

Attitudes Toward Vocational Education

Vocational education in Minnesota is widely seen as having a purpose, but there is no consensus on what vocational education's purpose is. Whereas most regard it as important, some see it as having a less important role in education than the academic curriculum. However, the public generally perceives a need for more career awareness and work readiness. Historically, vocational education has run the gamut in terms of commitment from "king of the hill" with lavish funding to the current point where the validity of vocational education in the schools is being questioned with an undertone among some that vocational education needs to "shape up or get out of the picture." Even where vocational education is well received, no one is out beating the drums for it as they are for such areas as programs for the gifted.

A wide variety of students are attracted to vocational education. Most are in the metropolitan area around Minneapolis-St. Paul, with some pockets of concentration among the Indian population. The overall majority are the children of blue-collar parents, a sprinkling of whom are college bound. Some will go on to the technical institutes for postsecondary education--but most are not seen as being motivated by academic curriculum. The stereotype is that vocational education is for the noncollege bound, although two-thirds of the 10th-12th graders take some vocational education. Certain occupations taught in vocational education are stereotyped by lower socioeconomic level and academic ability, whereas other occupations tend to attract upper quartile students.

Purpose/Goals

In 1983, the Minnesota state legislature sent a message to the vocational system that it must change by cutting funds and asking for greater program justification. The signal was that there would be further cuts unless the vocational education system instituted reforms to make it more responsive to changing conditions. The task force is using the term transformation rather than reform to reflect that changes are being made not with the attitude that things were wrong in the old system, but rather that it was not suitable for the 21st century. The system has been characterized by a low dropout rate, but the question remains, are people learning?

The goal of the system is to move to a learner-centered, outcome-based system for K-12 by 1993. A task force member stated "6-1/2 billion dollars are spent on education, but nowhere is it written in all the legislation and statutes that people must learn." The long-term goal for vocational education is that it should not be looked at as one discipline in many, but that vocational education should make a contribution alongside science or other academic subjects to the overall K-12 experience. The goal of the whole educational system is to develop and demonstrate the knowledge and competence in students necessary to fulfill their lifelong pursuits.

Under the transformed system, there is recognition that all students are capable of learning, but at different rates and in different ways. The goal is personalized as distinguished from individualized education. To address the high Indian dropout rate, for example, the legislature is stressing more emphasis on culture.

The task force also recognizes that all K-12 students should be thinking about what they will do when they complete school. A system goal is to shift the emphasis from specific skill preparation to the secondary level and to focus attention on career exploration and work readiness for all K-12 students, including academic.

Another goal is to shift specific skill training to postsecondary institutions including the technical institutes because of concern that secondary schools will not be able to keep abreast of changing technology. The technical institutes, of all units, are most conscious of the need for moving toward a learner outcome-based system. The technical institutes serve many of the nontraditional students--adults in their 30s and 40s who desire work-related courses while raising families. The technical institutes are moving from 6-hour blocks of uniformly prescribed courses to more of a flexible, cafeteria-style approach, allowing students to choose courses based on specific career or work-related interests and needs.

Finally, some task force members see the system moving toward more mandatory articulation between secondary and postsecondary institutions. A current barrier that has been pointed to is that secondary schools and technical institutes operate under two separate governing boards.

Structure/Governance

Vocational education in Minnesota is delivered through the local comprehensive high schools, 33 technical institutes, and 18 community colleges. The system operates with strong local control and the decision whether or not to offer vocational education is a local one. All three systems of institutions--the comprehensive high schools, the technical institutes, and the community colleges--operate under separate governing boards.

The Governor sits on the Education Commission of the States and has a strong interest in education. The Governor appoints the Commissioner of Education who directs the K-12 system and the K-12 Board. The Commissioner is accountable to the Governor, but the board operates independently (i.e., not in the line of authority under the Governor). Prior to the current Governor's term of office, the Commissioner of Education was appointed by the Board of Education. The State Vocational Education Director is appointed by and accountable to an Assistant Commissioner.

Nominally, technical institutes operate under a separate governing board although, in reality, most of their functions are governed by the local school district. The local districts approve programs and teacher salaries for the technical institutes and the governing board has little power except the allocation of funds. The technical institutes offer training and retraining for students who are beyond high school age, but three of the campuses offer secondary courses. Competencies normally can be transferred from the high school to the technical institutes. Currently, the state is trying to improve the linkage so that students can continue their postsecondary education at the technical institutes rather than at a community college.

The 18 community colleges are all within close proximity to the technical institutes, and some technical institutes now have intersystem articulation agreements to allow students to work toward associate degrees.

The state also has an intermediate district concept that provides for levy authority to support vocational education and special education through Vocational Cooperative Centers. They can be supported with state aid, and if they (the co-op centers) meet a specified size criteria, can float levies independent of the local districts.

The Vocational Cooperative Centers (one of a variety of names by which they are known) are governed by a Center Board of Education made up of one member from each of the cooperating school districts. The directors of Vocational Cooperative Centers report to a designated supervising superintendent in the respective cooperative district in which they operate.

Complicating the picture further are new entities called Education Districts being established to take the place of Vocational Cooperative Centers. The Education Districts have a broader based program of work. Included among the private and public cooperating institutions are secondary and postsecondary schools covering academic and vocational education. Whereas the

Vocational Cooperative Centers must be recommended and approved by the State Board of Education, Education Districts do not require Board approval. They have legal authority to form, provided they meet certain legal criteria. A staff member in the Commissioner's office simply checks to see that the institutions, as a group, meet the criteria for authorization.

The secondary funding formula for vocational education uses an excess-cost formula, taking into account the cost of vocational education programs and subtracting the general education the students earn.

Faculty Credentialling and Development

There are two licensing authorities in Minnesota. The State Board of Teaching licenses secondary vocational teachers and all other teachers except postsecondary vocational teachers whose licensing was transferred to the State Vocational Board. For secondary vocational instructors, an average of about 4,000 hours of work experience for those with a degree and about 6,500 hours work experience for those without a degree are required. Some hours of work experience can be substituted with courses.

There have been some preliminary discussions about credentialling although not much has been concluded. A number of respondents see some movement toward encouraging academic and vocational skill integration for teachers. More dual academic-vocational certification has been suggested, requiring vocational teachers to become grounded in the basics rather than just "teaching shop." Some current license requirements would have to be

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waived to accommodate teachers who would teach vocational education courses. A science instructor, for example, would not have the industrial technology license necessary to teach in an integrated setting even though he or she might have the knowledge or skills. Because of recent cuts to vocational education, it is felt that vocational teachers are much more likely to see the need for integration than are academic teachers.

It has also been suggested that flexibility could be increased by allowing people to teach at the local level without credentialling. The move would facilitate bringing people from industry without degrees to teach some segment of a class. Speculation is that the proposal would gain stiff opposition from teachers unions, but the legislature might introduce it anyhow.

The movement to an outcome-based system is also likely to force teacher education programs to an outcome-based model themselves (e.g., "Here's what teachers need to know to function in a given area"). A study supporting this view was completed in 1986, and is now being put into place. At least one Education District, recognizing changing requirements for functioning in an outcome-based system, is putting its teachers through district-sponsored staff development to accommodate the transition.

Instructional Processes

The state system is seen by some state task force members as moving eventually to some form of competency-based, open-entry/ open exit classes. The terminology used is outcome-based or results-based instruction rather than competency-based, and the vision is for the total system, academic and vocational. The plan emphasizes removing boundaries between systems to facilitate continuity in learning. In the outcome-based system, time will be looked at much differently. Students will have to acquire expected outcomes before moving on, subject matter or skills will be taught and retaught until mastery is achieved. It is envisioned that instruction will be much more rigorous with some talk of moving to a grading system that only recognizes A, B, and Incomplete. It will be necessary to state the outcomes in terms of courses for a period of time to ease interpretation of work to be transferred to 2- and 4-year institutions for credit.

Strengths/Weaknesses

There is a feeling that Minnesota has been successful historically in providing education from K-12 through the career stages. Until the last 5 years, most students had at least one vocational education course. Over the past few years, the secondary system has been weakened by increased demands for academic requirements and the reduced concomitant demand for vocational courses.

There is wide agreement that a major accomplishment was pulling together a task force to work on the vocational education reauthorization plan for a variety of interests with support from both the House and Senate. Over 250 educators (vocational and academic), administrators, legislators, and students were involved in the thinking process and, while there was strong direction, a consensus process was used allowing everyone's ideas to be considered in the plan's development.

They were also pleased with the product--a plan calling for an outcome-based system, the integration of academic and vocational education, secondary-postsecondary articulation, and equal access with legislative recommendations that rules be relaxed to achieve it.

At the same time, there is a great deal of apprehension over the enormity of the task and the pace at which changes are occurring. The time allotted to prepare the report was only 5 months. It took 3 months for the money to be allocated from the legislature, and the process of putting the report together had to start before the funds were in hand. Those circumstances limited the amount of participation from the field, causing apprehension about the perception of the degree of ownership by stakeholders. Some people see impending legislative changes of a fundamental nature with respect to vocational education and feel they do not know enough about it, and that the changes in the vocational system needed to be viewed, not piecemeal, but as a part of the total educational restructuring.

The question of how to train staff adequately and integrate across disciplines to implement the plan seems overwhelming. The plan calls for retraining 42,000 teachers within 5 years. Because of the enormity of the undertaking, the potential for big mistakes seems greater. Some feel that the proposed changes should be a matter of choice and not mandatory.

Ohio Vocational Education: An Evolutionary Approach to Change

Setting/Factors Shaping Vocational Education

Vocational administrators in Ohio see the state as having a relatively large portion of the population with baccalaureate degrees, a surplus of college graduates, and a shortage of technicians--a state that is generally undertraining for business and technology. Legislation is at a standstill in units funding. Ohio is one of the six highest states in teen pregnancy, and the problem is increasing among vocational students as well as among those in the system at large. The number of physically handicapped, especially those with multiple handicaps, are also increasing rapidly in vocational education.

Attitudes toward Vocational Education

Attitudes toward vocational education vary widely, depending on the level of familiarity of the observer and on the geographic location. The image of vocational education seems to be positive to the man-on-the-street. A recent poll conducted by the Institute for Policy Research in Cincinnati, Ohio, found that 75 percent of respondents who had children in school felt vocational courses would be appropriate for their children; 80 percent of respondents felt that vocational education was "extremely" to "very" important as a part of the high school program.

Business leaders, especially chief executive officers of large companies, express negative attitudes toward vocational education, but those attitudes seem to run counter to the hiring preferences among production supervisors in the large companies. Vocational education is not mentioned prominently as an educational alternative among black leaders, although black students enrolled in vocational education are 17 percent compared to 14.2 percent in the overall school population. By the same token, vocational education seems to carry a generally higher image in the less densely populated blue-collar counties than in the most populous urban counties.

Goal/Purpose of Vocational Education

The Vocational Education Mission Statement in Ohio provides a threefold purpose: to increase basic skills, the core competencies necessary to prepare for entry-level job and for lifelong learning; to build employability skills--those skills and work habits essential for productivity; and to develop employment skills--the skills to perform occupationally-related tasks.

The Department of Education places heavier emphasis on secondary vocational education, although postsecondary vocational education is also emphasized. A number of reasons are cited by state administrators: free education ends at the 12th grade and a number of students will not have the means of advancing immediately to the postsecondary level; more federal dollars are invested in secondary public education than in postsecondary; and there is a need to catch students as early as possible in order to increase the amount and quality of training to which they will be exposed. Of the 300,000 students enrolled in degree granting institutions only 21,000 are in associate degree programs and the vast majority never complete; the bulk of postsecondary education is retraining. The elected State Board of Education and the State Superintendent have established a goal of 40 percent enrollment of secondary students in vocational education, given the dollars available in the current state plan.

Structure/Governance

K-12 public education in Ohio is governed by an elected State Board of Education to whom the State Superintendent of Public Instruction reports. The State Director of the Division of Vocational and Career Education reports to one of five assistant superintendents.

Ohio's 614 school districts are divided among 103 Vocational Education Planning Districts (VEPD). Vocational education must be made available to every 11th and 12th grader. Some single city school systems comprise a VEPD, and some districts combine to form a Joint Vocational School District (JVSD). School districts and JVSDs levy taxes for local support. JVSDs are often more successful in passing levies; because they draw from a wider area, they can request lower millage.

Vocational education programs are delivered through comprehensive high schools, satellite career centers, in a single school district, and joint vocational schools. A major thrust of many of the JVSs is adult training--particularly direct training for industry. Twenty-one centers are full service adult centers with a wide variety of services such as intake, assessment remediation, and career counseling tailored to accommodate adult needs. They are accredited by the North Central Accrediting Association and students are eligible for PELL grants. The Adult Centers are designed to provide business and industry cost-efficient training to upgrade the skills of their personnel. It is also projected that the new welfare reform legislation requirements will create massive adult programs putting intense pressure on the system to respond. Under the new rules, adult clients with no high school diploma must be enrolled in Adult Basic Education.

Funding

Postsecondary vocational education is funded with local, state, and federal funds. The state provides 53 percent and the local provides 47 percent from tax receipts gathered through levies. State funding is based on the Secondary Unit System. A unit is comprised of a teacher, students (15-25), and hours (22-1/2 per week). The state provides $35,000 per unit per school district. Federal money comes from Carl Perkins funds.

JVSs hold somewhat of an advantage in funding. They are able to ask for smaller millage in tax levies because their taxes are drawn from a wider area than the local districts. Consequently, JVS levies are successful. Moreover, JVSs get higher state aid than the locals because they are able to beat them on average daily attendance. Whereas there is a great deal of competition for state and local funds, federal money is not a high concern.

The state equipment line item is $5 million to cover up to 50 percent of a district's costs. Where the state shares the cost of equipment, it has to be tagged with a state tag and sold back to the state after its use. There is some equipment sharing within school districts where secondary and postsecondary programs are run.

Faculty Credentialling/Development

Secondary vocational educators must be certified by the state. Instructors with a baccalaureate degree are required to have 3 years of work experience; those with no baccalaureate are required to have 5 years of work experience and must complete a 36-hour instructional program. Requirements were recently changed from 24 quarter hours to 36, and from 7 years to 5 years trade experience--more baccalaureate education and fewer years experience.

The state also runs its own inservice workshops for vocational education instructors. Five Regional Personnel Development Centers are operated at the state universities with vocational education cosponsorship. The personnel development centers train teachers newly recruited from business and industry and experienced teachers. In addition, they conduct research for vocational education. Local districts sometimes provide paid seminars and provide opportunities for instructors to spend time working in their area of instruction. They are encouraged to use their advisory committees as a means of updating their knowledge in the fields of instruction. They are also encouraged to take teacher education classes.

The state is now promoting dual certification--academic and vocational--for instructors. Many vocational teachers could teach mathematics and science because of requirements in their occupational areas. Vocational teachers can now be paid by the state to work on academic certification.

Currently the state does not check those coming from industry for basic skills. Employers are simply asked for verification of industry experience. It is likely that more entry-level testing will occur for vocational and academic skills.

Instructional Process

The Superintendent of Public Instruction in Ohio is calling for vocational education to push for program excellence. The push is resulting in a movement toward strengthened academics in vocational education to build in transferrable skills for anticipated job changes that students are likely to face in the work world.

The Ohio initiative for increased academic content in vocational education is Program Options. Where the vocational education teacher traditionally taught all vocationally related basic skills, under Program Options certified math, English, and science teachers are teaching the academic content. Coordination between the academic and vocational teachers is facilitated by state-sponsored preservice workshop for teachers, by a correlated outline for classes, and by a scheduled correlation time for the vocational and academic teachers to meet. The vocational teachers communicate to the academic teacher the kinds of tasks to be performed and the academic teacher relates the principals involved.

The movement toward academic vocational integration is having an impact on academic courses as well. Mathematics specialists are now talking about increasing the amount of teaching via applications. There is now talk in Ohio of moving toward a two-track system in education--college preparatory or academic and vocational eliminating the general track. It is widely held that general education prepares the student for nothing.

State officials feel that Ohio will move toward competency-based instruction to reflect the competencies in various occupations, but movement toward open-entry/open-exit instruction is restricted by Carnegie units and time standards. In some cases, seniors in the second semester can go on early placement into the workplace. The adult education programs are largely competency based and open-entry/open-exit, reflecting the necessity to accommodate business and industry needs.

Some articulation agreements allow for early entry into postsecondary programs. Currently, articulation agreements are found at the local level in Ohio. However, the state recognizes it has a responsibility to take the leadership in forming articulation agreements and sees itself taking the initiative more over the next 3 years or so.

Strengths/Weaknesses

Ohio has taken more of an evolutionary than rapid approach to change in its vocational education program. There is a great deal of comfort with the program as it is, but with a recognition that adjustments must be made here and there to meet changing conditions. Strengths pointed to in the program are the following:

- Vocational education is accessible within very short driving time to every student in Ohio.
- Placement rates are high--over 90 percent of students are placed; over 75 percent employed in fields related to training.
- Vocational education has good relationships with the private sector and strong commitment on the part of employers.
- Program Options is an exemplary program.

Areas suggested for attention were as follows:

- Stronger career exploration for younger students
- Greater coordination with public agencies for physical, social, and emotional support
- A restructuring of boundaries between JVSs and high schools to reduce the competition--some high schools are within a few minutes of JVSs
- Better public relations to improve vocational education's image
- The need to keep pushing access, equity, and excellence

CHAPTER 4

INTERVIEW QUESTIONS AND QUESTIONNAIRES

I. KEY QUESTIONS

Code

1-00 A. Key Questions

1-40 1. What is the purpose of vocational education?

1-41 2. Is the current vocational education system in Pennsylvania accomplishing this purpose? Strengths? Problems?

1-42 3. Describe the fundamental characteristics of the ideal way to prepare youth and adults for work in the year 2020?

1-43 4. In your opinion, what changes need to be made in Pennsylvania's voc-ed system to achieve the ideal system needs?

1-44 5. We are going to send a survey instrument to 300 individuals across Pennsylvania. We are seeking diverse opinions about vocational education in Pennsylvania. Who would you recommend for potential survey respondents? (name, title, complete mailing address)

1-45

1-46

1-47

1-48

II. EDUCATION

Code	
2-00	A. Assumptions/Goals
2-40	1. philosophy
2-41	2. goal determination
2-42	3. goal statements
2-43	4. level of student proficiency
2-44	5. holistic vs. skill preparation
2-45	6. rationale
3-00	B. Governance
3-40	1. structures
3-41	2. interrelationships
3-42	3. control
3-43	4. group interest
3-44	5. policy determination
4-00	C. Organization
4-40	1. administrative style
4-41	2. levels
4-42	3. delivery system
4-43	4. job assignment/all staff
4-44	5. timeframe/pattern
4-45	6. state/local organization

Code	
5-00	D. Teacher Characteristics
5-40	1. gender
5-41	2. job experience
5-42	3. academic preparation
5-43	4. updates: technical and pedagogical
5-44	5. ethnic composition
5-45	6. age
6-00	E. Access
6-40	1. target group
6-41	2. scheduling of classes/students
6-42	3. facility/equipment modification
7-00	F. Effectiveness/Efficiency
7-40	1. evaluation processes - state - local level
7-41	2. indices/criteria
7-42	3. stakeholder involvement
8-00	G. Planning
8-40	1. processes
	a. participation - stakeholders
	b. follow-up
	c. timeliness - frequency
	d. information sources
	e. implementation
8-41	2. future orientation

Code		
9-00	H.	Funding
9-40	1.	sources - local taxes and state/federal categorical, entitlement, competitive
9-41	2.	distribution/allocation
9-42	3.	guidelines - rules and regulations
10-00	I.	Facilities and Equipment
10-40	1.	utilization
10-41	2.	currency/usefulness
10-42	3.	size and amount
10-43	4.	location
10-44	5.	relevance to program goals
11-00	J.	Curriculum
11-40	1.	objectives
11-41	2.	programs offered
11-42	3.	safety
11-43	4.	scope and sequence
11-44	5.	content
11-45	6.	location of offerings
11-46	7.	leadership development/youth and adults
11-47	8.	career development

Code		
12-00	K.	Student
12-40	1.	gender
12-41	2.	numbers
12-42	3.	class standing
12-43	4.	enrollment by program
12-44	5.	handicapped
12-45	6.	disadvantaged
12-46	7.	job placement
13-00	L.	Rules and Regulations
13-40	1.	minimum enrollment
13-41	2.	definition of voc ed student
13-42	3.	development processes
14-00	M.	Instructional Processes
14-40	1.	teaching/learning strategies
		a. coop
		b. team teaching
		c. competency-based
		d. open entry/open exit
		e. individualized
14-41	2.	youth club participation
14-42	3.	time on task
14-43	4.	teacher time (schedule)
14-44	5.	student records

Code		
15-00	N.	Linkages
15-40	1.	types
15-41	2.	formal/informal
15-42	3.	agencies, entities, organizations
16-00	O.	Articulation
16-40	1.	types of agreements
16-41	2.	extent of participation
16-42	3.	potential
17-00	P.	Professional Personnel Development
17-40	1.	providers
17-41	2.	requirements - certification
17-42	3.	rewards - credit, salary
17-43	4.	delivery system - release time

III. COMMUNITY

Code		
18-00	A.	Ethnic composition
19-00	B.	Attitudes and values
19-40		1. image of education
19-41		2. role of education
19-42		3. role of voc ed
19-43		4. per pupil expenditure
19-44		5. Test of Essential (TELS)
19-45		6. EQUA data
19-46		7. participation in additional education
19-47		8. state/federal/local mix of funds
19-48		9. advisory committee participation
20-00	C.	Stakeholder participation
21-00	D.	Socio-economic factors
21-40		1. trends and issues
21-41		2. family income
21-42		3. employment trends
21-43		4. plant closings and start-up
21-44		5. citizen mobility
21-45		6. welfare participation
21-46		7. characteristics of new jobs

IV. LABOR MARKET

Code	
22-00	A. Number, kind, size of firms
23-00	B. Employer needs
23-40	1. emerging occupations
23-41	2. projections
23-42	3. new industries
23-43	4. state sources for information re: employment needs
24-00	C. Employer attitudes

PENNSYLVANIA VOCATIONAL EDUCATION STUDY

Name ____

Please list the five major strengths and weaknesses/problems of the Pennsylvania vocational education system. Please be clear and concise.

STRENGTHS

(1)

(2)

(3)

(4)

(5)

WEAKNESSES/PROBLEMS

(1)

(2)

(3)

(4)

(5)

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(Please go to next page)

PENNSYLVANIA VOCATIONAL EDUCATION STUDY

Please list suggestions for improving the delivery of a comprehensive, articulated program of vocational eduction in the Commonwealth of Pennsylvania. Your suggestions may cover areas such as state and local governance, program relevance, program planning, program evaluation, curriculum, instructional processes, program goals, coordination of program offerings by various agencies and institutions, staff development, program relationships with business/industry, and other areas you deem appropriate. Please be brief and concise.

(1)

(2)

(3)

(4)

(5)

PENNSYLVANIA VOCATIONAL EDUCATION STUDY

Second Round - Policy Delphi

Name ____

Office telephone number (_____)_________________
(We are requesting a telephone number to use in the event that we need to further discuss your ideas.)

DIRECTIONS:

Please respond to the following issues, goals, and alternatives by placing an "x" in the box that indicates the levels of desirability and feasibility you would assign to each item. It is important that we understand the logic behind your ratings. Therefore, we are asking that you briefly and clearly describe why you rated each statement as you did.

1. The state education agency should provide leadership for and coordinate the development of a long-range vision of what vocational-technical education is and what it should be and communicate that vision to all publics.

Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

2. The state education agency should provide leadership and technical assistance for local public and proprietary education institutions to develop plans for coordinated and articulated vocational-technical education programs at all levels. Such plans would include individual and community needs assessment, specification of program offerers, and program scope and sequence.

Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

3. Audits should be conducted by local providers of vocational-technical education programs to determine what happens to students after they leave vocational-technical education programs.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

4. Leadership from the state education agency is needed to maintain a cutting-edge emphasis in vocational-technical education curriculum development, research, program planning, program evaluation, and personnel development.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

5. State and local vocational-technical education administrators should have in-depth knowledge of vocational-technical education acquired through a combination of formal preparation and experience.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

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6. The position of chief administrator for vocational-technical education in the state education agency should be elevated to the level of commissioner.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

7. The state education agency needs to place more emphasis on and give more visibility to innovative/exemplary vocational-technical education programs.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

8. State leadership and other resources should be provided to local institutions for enhancing the job placement programs and processes.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

9. Vocational educators should seek agreements with business and industry officials who would guarantee placement of vocational-technical education graduates.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

10. The state should develop a system for vocational-technical education equipment replacement and a system for funding needed equipment.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

11. All beginning vocational-technical education teachers should have a baccalaureate degree.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

12. The state should establish a research and development center with responsibility for planning and conducting statewide efforts for vocational-technical education in--

- o Curriculum Development
- o Innovative/Exemplary Programs
- o Personnel Development
- o Research
- o Program Planning
- o Program Evaluation

Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

13. The state, in cooperation with business and industry, should develop training programs that use the facilities of business and industry to update the technical skills of vocational-technical education teachers.

Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

14. All vocational-technical education personnel should be required to attend an annual statewide conference that is designed to bring together all teachers, administrators, and others interested in and concerned about vocational-technical education for joint as well as concurrent sessions.

Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

15. All area vocational-technical schools should be designated as technical institutes.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

16. The area vocational-technical school should have its own elected school board which appoints its own chief school officer.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

17. The regional vocational-technical education offices should be closed and current personnel placed in the intermediate units.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

18. The same funding formulas should be applied to community colleges and area vocational-technical schools.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

19. Area vocational-technical school funding should be based on participating school enrollment regardless of the number of students the participating school sends to the area vocational-technical school.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

20. The state should provide double funding for secondary students attending an area vocational-technical school (i.e., if the subsidy for each secondary student is 1.2, then the subsidy for a student attending an area vocational-technical school should be 2.4).
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

21. A career awareness program should be implemented in all school systems.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

22. Exploratory vocational-technical education programs should be offered at the middle/junior and senior high school levels.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

23. Vocational-technical education should be offered as clusters of occupations at the ninth grade and all students should be required to enroll for credit in these combination hands-on career development courses. Students would receive 1 credit for participating in 4 cluster areas that they would choose.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

24. The curriculum offering of the area vocational-technical school should be comprehensive, integrating vocational and academic education.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

25. Where possible, apprenticeship programs should be established in conjunction with vocational-technical education programs.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

26. Secondary vocational-technical education should be a generalized offering reflecting core clusters and transferable technical knowledge and skills with emphasis on critical thinking and enhancement of basic skills.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

27. Vocational-technical education programs should be competency based with no requirements regarding the minimum number of hours to be completed.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

28. Vocational-technical education programs should be discontinued at the secondary level and offered only at the postsecondary level.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

29. Vocational-technical education needs to develop and offer special programs for those individuals who have dropped out of school.
Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

30. Area vocational-technical education schools should place a major focus on adult vocational-technical education rather than secondary vocational-technical education.

Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

31. The state should expand customized training programs and use the staff, facilities, and equipment of community colleges and area vocational-technical schools.

Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

If you would like to add items you feel strongly about, please feel free to do so.

32.

Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

33.

Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

34.

Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

35.

Explanation:

Very Desirable	Desirable	Undesirable	Very Undesirable	No Judgment
☐	☐	☐	☐	☐

Definitely Feasible	Possibly Feasible	Possibly Unfeasible	Definitely Unfeasible	No Judgment
☐	☐	☐	☐	☐

THANK YOU!

CHAPTER 5

MAILING LIST FOR DELPHI SURVEYS

Health Occupations Instructors

Ms. Kathryn Bamberger
Health Assistant
Greene County AVTS
R. D. 2, Box 40
Waynesburg, PA 15370

Ms. Norma J. Bonner
Medical Assistant
Pittsburgh SD
341 S. Bellefield Avenue
Pittsburgh, PA 15213

Ms. Isabella Harrison
Health Assistant
Central Chester Co AVTS
1635 E. Lincoln Highway
Coatesville, PA 19320

Ms. Virginia Noll
Health Assistant
York County AVTS
2179 S. Queen Street
York, PA 17402

Ms. Marguerite Savidge
Practical Nursing
Danville Area SD
Pine & E. Mahoning Street
Danville, PA 17821

Ms. Kathryn M. Stevenson
Health Assistant
McKeesport Area SD
2225 Fifth Avenue
McKeesport, PA 15132

Home Economics Instructors

Ms. Maria Barna
Home Economics
Hazleton Area SD
Church & Walnut Streets
Hazelton, PA 18201

Ms. Janice Caruso
Home Economics
Bradford Area SD
50 Congress Street
Bradford, PA 16701

Ms. Kathryn L. Daugherty
Home Economics
Kiski Area SD
200 Popular Street
Vandergrift, PA 15690

Ms. Ruth K. Duessel
Home Economics
Pittsburgh SD
341 S. Bellefield Avenue
Pittsburgh, PA 15213

Ms. Tyna L. Edwards
Home Economics
Reading SD
8th & Washington Streets
Reading, PA 19601

Ms. Margar Fadool
Home Economics
Mount Lebanon SD
7 Horsman Drive
Pittsburgh, PA 15228

Ms. Susan Golumbfskie
Home Economics
Shamokin Area SD
2000 W. State Street
Shamokin, PA 17872

Ms. June O. Hahn
Home Economics
Northampton Co. AVTS
5335 Kesslerville Road
Easton, PA 18042

BEST COPY AVAILABLE

Ms. Sandra Hewko
Home Economics
Freedom Area SD
1701 Eighth Avenue
Freedom, PA 15042

Ms. Betty Jennings
Home Economics
Philadelphia City SD
21st at Parkway
Philadelphia, PA 19103

Ms. Karen L. Loose
Home Economics
Central Dauphine SD
600 Rutherford Road
Harrisburg, PA 17109

Ms. Joan E. McNaughton
Home Economics
West Perry SD
R. D. 1
Elliottsburg, PA 17024

Ms. Marie E. Meehan
Home Economics
Upper Darby SD
Burmont Road & Bond Avenue
Drexel Hill, PA 19026

Ms. Christine A. Miller
Home Economics
Bald Eagle Area SD
Box 4
Wingate, PA 16880

Ms. June E. Shulenberger
Home Economics
Conestoga Valley SD
2110 Horseshoe Road
Lancaster, PA 17601

Ms. Donna Shultz
Home Economics
Wyoming Valley West SD
450 Maple Avenue
Kingston, PA 18704

Ms. Gladys G. Shutty
Home Economics
Northern Cambria SD
600 Joseph Street
Barnesboro, PA 15714

Ms. Antoinette Smith
Home Economics
McKeesport Area SD
2225 Fifth Avenue
McKeesport, PA 15132

Ms. Karen Smith
Home Economics
Penn-Trafford SD
Administration Bldg.
Harrison City, PA 15636

Ms. Joan A. Zeller
Home Economics
Springfield Twp. SD
1901 E. Paper Mill Road
Oreland, PA 19075

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Secondary Guidance Counselors

Ms. Karen L. Belasco
Guidance Counselor
Peters Township SD
631 East McMurray Road
McMurray, PA 15317

Mr. Albert C. Cecco
Guidance Counselor
Neshaminy SD
2001 Old Lincoln Hwy.
Langhorne, PA 19047

Mr. Alfred B. Cornish
Guidance Counselor
Upper Merion Area SD
435 Crossfield Road
King of Prussia, PA 19406

Ms. Jean M. Donohue
Guidance Counselor
Wilkes Barre Area SD
730 S. Main Street
Wilkes Barre, PA 18711

Mr. Peter M. Giovenco
Guidance Counselor
Pittsburgh SD
341 S. Bellefield Ave.
Pittsburgh, PA 15213

Mr. Frank A. Kuhn, Jr.
Guidance Counselor
Cornwall-Lebanon SD
105 E. Evergreen Road
Lebanon, PA 17042

Ms. Madeline Leo
Guidance Counselor
Scranton City SD
425 N. Washington Ave.
Scranton, PA 18503

Mr. Dyan Marks
Guidance Counselor
North Schuylkill SD
S. Center & Oak Streets
Frackville, PA 17931

Ms. Sherry L. McClure
Guidance Counselor
Dubois Area SD
500 Liberty Blvd.
Dubois, PA 15801

Mr. Donald R. McFall
Guidance Counselor
Central Dauphin SD
600 Rutherford Road
Harrisburg, PA 17109

Ms. Linda Morton
Guidance Counselor
Fox Chapel Area SD
611 Field Club Road
Pittsburgh, PA 15238

Ms. Gwyneth Peischel
Guidance Counselor
Stroudsburg Area SD
123 Linden Street
Stroudsburg, PA 18360

Mr. Michael A. Pierol
Guidance Counselor
Wilson SD
Grandview Blvd.
West Lawn, PA 19609

Ms. Joann M. Rozelle
Guidance Counselor
Bellefonte Area SD
301 N. Allegheny St.
Bellefonte, PA 16823

Ms. Margaret Schollaert
Guidance Counselor
Chambersburg Area SD
511 South 6th Street
Chambersburg, PA 17201

Mr. Ralph R. Shellenberger
Guidance Counselor
Dallastown Area SD
R.D. 1
Dallastown, PA 17313

BEST COPY AVAILABLE

Mr. John E. Wilson
Guidance Counselor
Big Beaver Falls Area SD
820 Sixteenth Street
Beaver Falls, PA 15010

Mr. Bryan W. Wren
Guidance Counselor
Rose Tree Media SD
901 N. Providence Road
Media, PA 19063

Directors of Vocational-Technical Education

Mr. Roger D. Apple
Director of Voc Ed
Steel Center AVTS
565 Lewis Run Road
Clairton, PA 15025

Mr. G. W. Blaney
Director of Voc Ed
Fayette County AVTS
R. D. 2, Box 122-A
Uniontown, PA 15401

Mr. Ronald G. Brougher
Director of Voc Ed
Greater Johnstown SD
220 Messenger Street
Johnstown, PA 15902

Mr. Robert G. Brown
Director of Voc Ed
Mercer County AVTS
P.O. Box 152, Route 58
Mercer, PA 16137

Mr. Joseph J. Colaneri
Director of Voc Ed
East Montgromery County AVTS
175 Terwood Road
Willow Grove, PA 19090

Mr. Barry L. Dallara
Director of Voc Ed
Bedford-Everett AVTS
R.D. 1, Box 460
Everett, PA 15537

Ms. Mary A. Daniel
Director of Voc Ed
Upper Dublin SD
530 Twining Road
Dresher, PA 19025

Mr. Joseph DeFranco
Director of Voc Ed
Bristol Township SD
800 Coates Avenue
Bristol, PA 19007

BEST COPY AVAILABLE

Mr. Richard P. DeLuca
Director of Voc Ed
Erie County AVTS
8500 Oliver Road
Erie, PA 16509

Mr. Leroy Derstine
Director of Voc Ed
Bradford Area SD
50 Congress Street
Bradford, PA 16701

Mr. Charles E. Eisentrout
Director of Voc Ed
Clearfield County AVTS
R.R. 1, Box 5
Clearfield, PA 16830

Mr. Broderick A. Fisher
Director of Voc Ed
Crawford County AVTS
860 Thurston Road
Meadville, PA 16335

Mr. Donald L. Foellner
Director of Voc Ed
Bethlehem AVTS
330 Chester Avenue
Bethlehem, PA 18017

Ms. Linda C. Giroski
Director of Voc Ed
Forbes Raod East AVTS
Beatty & Cooper Road
Monroeville, PA 15146

Mr. Joseph P. Harosky
Director of Voc Ed
Upper Bucks County AVTS
R.R. 2, Box 207
Perkasie, PA 18944

Mr. Ronald D. Hershberger
Director of Voc Ed
Keystone Central AVTS
95 W. Fourth Street
Lock Haven, PA 17745

Mr. Ronald H. Holvey
Director of Voc Ed
Northumberland County AVTS
1700-2000 W. Montgomery
Shamokin, PA 17872

Mr. Dean W. Karns
Director of Voc Ed
Western AVTS
R. D. 1, Box 178-A
Canonsburg, PA 15317

Mr. John M. Kauffman
Director of Voc Ed
Sun AVTS
815 East Market Street
New Berlin, PA 17855

Ms. Juanita D. Moore
Director of Voc Ed
lHBG-Stlton-Highspr AVTS
P.O. Box 5100
Harrisburg, PA 17110

Mr. William J. Mulvehill
Director of Voc Ed
Admiral Peary AVTS
Rt. 422 W, Road 2
Ebensburg, PA 15931

Mr. Robert D. Muzzi
Director of Voc Ed
Lakawanna County AVTS
3201 Rockwell Avenue
Scranton, PA 18508

Mr. Dalton E. Paul
Director of Voc Ed
Franklin County AVTS
2463 Loop Road
Chambersburg, PA 17201

Mr. Thomas G. Pivnichny
Director of Voc Ed
Delaware County AVTS
6th & Olive Streets
Media, PA 19063

BEST COPY AVAILABLE

Mr. Rody Polojac
Director of Voc Ed
Beaver County AVTS
Poplar Drive
Monaca, PA 15061

Mr. George W. Pyle
Director of Voc Ed
West Side AVTS
75 Evans Street Pringle
Kingston, PA 18704

Ms. Nelda N. Renner
Director of Voc Ed
McKeesport Area SD
2225 Fifth Avenue
McKeesport, PA 15132

Mr. Harold E. Rood
Director of Voc Ed
Reading Muhlenberg AVTS
P.O. Box 13068
Reading, PA 19612

Mr. Joseph Rothdeutsch
Director of Voc Ed
Lehigh County AVTS
2300 Main Street
Schnecksville, PA 18078

Mr. William H. Rupell
Director of Voc Ed
Indiana County AVTS
441 Hamill Road
Indiana, PA 15701

Mr. Donald R. Seiple
Director of Voc Ed
Monroe County AVTS
P.O. Box 66
Bartonsville, PA 18321

Mr. Ronald L. Smith
Director of Voc Ed
Cumberland Perry AVTS
110 Willow Mill Road
Mechanicsburg, PA 17055

Mr. William L. Springer
Director of Voc Ed
Centre County AVTS
Pleasant Gap, PA 16823

Mr. Thomas M. Turnbaugh
Director of Voc Ed
Parkway West AVTS
R.D. 1, Box 424
Oakdale, PA 15071

Mr. Charles E. Wernert
Director of Voc Ed
Schuylkill Int. Unit
Special Ed Center
Box 130
Mar Lin, PA 17951

Mr. Robert E. Westley
Director of Voc Ed
Tyrone Area SD
1317 Lincoln Avenue
Tyrone, PA 16686

Mr. Nicholas Zarichansky
Director of Voc Ed
North Westmoreland Co. AVTS
Stevenson Boulevard
New Kingston, PA 15068

Mr. Arthur R. Zarone
Director of Voc Ed
Lawrence County AVTS
750 Wood Street
New Castle, PA 16101

Mr. C. R. Zimmerman
Director of Voc Ed
Northern Chester County AVTS
Charlestown Road
Phoenixville, PA 19460

BEST COPY AVAILABLE

Community College Act 44 Contact Persons

Mrs. Joanne Capinski
Director of Inst. Research
Montgomery Co. Community College
340 DeKalb Pike
Blue Bell, PA 19422

Mr. W. Douglas Hargis
Assistant Dean of Students
Harrisburg Area Community College
3300 Cameron Street Road
Harrisburg, PA 17110

Dr. James E. Middleton
Dean of Academic Affairs
Williamsport Area Comm. College
1005 West Third Street
Williamsport, PA 17701

Mr. Jerome Parker
Assistant to the President
Delaware Co. Community College
Route 252 and Media Line Road
Media, PA 19062

Mrs. Judy Schilling
Director of Inst. Research
Butler County Community College
College Drive, Oak Hills
Butler, PA 16001

Ms. Frances M. Sitko
Research Assistant
Community College of Allegheny Co.
800 Allegheny Avenue
Pittsburgh, PA 15233

Ms. Helen Whitaker
Director of Planning, Research
  and Government Relations
Northampton Co. Area Comm. College
3835 Green Pond Road
Bethlehem, PA 18017

Mrs. Joanne Capinski
Director of Inst. Research
Montgomery Co. Community College
340 DeKalb Pike
Blue Bell, PA 19422

Mr. W. Douglas Hargis
Assistant Dean of Students
Harrisburg Area Community College
3300 Cameron Street Road
Harrisburg, PA 17110

Dr. James E. Middleton
Dean of Academic Affairs
Williamsport Area Comm. College
1005 West Third Street
Williamsport, PA 17701

Mr. Jerome Parker
Assistant to the President
Delaware Co. Community College
Route 252 and Media Line Road
Media, PA 19062

Mrs. Judy Schilling
Director of Inst. Research
Butler County Community College
College Drive, Oak Hills
Butler, PA 16001

Ms. Frances M. Sitko
Research Assistant
Community College of Allegheny Co.
800 Allegheny Avenue
Pittsburgh, PA 15233

Ms. Helen Whitaker
Director of Planning, Research
  and Government Relations
Northampton Co. Area Comm. College
3835 Green Pond Road
Bethlehem, PA 18017

BEST COPY AVAILABLE

Chamber of Commerce Personnel

Ms. Christine Bethea
Executive Director
East Liberty Chamber of Commerce
124 South Highland Avenue
Pittsburgh, PA 15206

Ms. Sandra L. Blauch
Executive Secretary
Manheim Area Chamber of Commerce
210 South Charlotte Street
Manheim, PA 17545

Mr. Charles W. Brake, Jr.
President
Gtr. Aliquippa Area Chamber of Com.
132 Broadhead Road
Aliquippa, PA 15001

Mr. Ralph Burchinati
President
Carmichaels Chamber of Commerce
P.O. Box 93
Carmichaels, PA 15320

Mr. Nicholas DeBenedictis
President
Gtr. Philadelphia Chamber of Com.
Suite 800
Avenue of the Arts Building
1346 Chestnut Street
Philadelphia, PA 15222

Mr. James Deetz
President
Myersdale Chamber of Commerce
c/o Bolden Shoe Store
217 Center Street
Myersdale, PA 15552

Mrs. Phil A. Dymond
President
Latrobe Area Chamber of Commerce
10 Lloyd Avenue
P.O. Box 143
Latrobe, PA 15650

Mr. Edward G. Edwards
Exec. Vice President
Bloomsburg Area Chamber of Commerce
240 West Main Street
Bloomsburg, PA 17815

Mr. Harold S. Finigan
President
Gtr. Darby Chamber of Commerce
824 Main Street
Darby, PA 19023

Mr. Kevin Gilroy
President
PA National Bank & Trust
518 Walnut Street
Ashland, PA 17921

Ms. A. Lillian Infante
Secretary-Treasurer
Sharpsburg Chamber of Commerce
P.O. Box 7758
Sharpsburg, PA 15215

Ms. Kathleen A. Key
Executive Director
Quarryville Area Chamber of Com.
P.O. Box 24
Quarryville, PA 17566

Mr. Carl D. Loch
Manager
Northampton Area Chamber of Com.
1516 Laubach Avenue
Northampton, PA 18067

Ms. Betty Lou Mack
Secretary
Clearfield Chamber of Commerce
15 South Second Street
P.O. Box 250
Clearfield, PA 16830

Mrs. Dale P. Mahle
President
TriCounty Chamber of Commerce
135 High Street
Pottstown, PA 19464

BEST COPY AVAILABLE

Ms. Kathy Mills
Main Street Manager
Huntingdon Borough Chamber of Com.
P.O. Box 827
Huntingdon, PA 16652

Mr. Kevin J. Ryan
President
Exton Area Chamber of Commerce
P.O. Box 314
Exton, PA 19341

Mr. Richard G. Shook
Executive Director
Gtr. Waynesboro Chamber of Com.
323 East Main Street
Waynesboro, PA 17268

Mr. David Smith
Milton Area Chamber of Commerce
112 South Front Street
P.O. Box 118
Milton, PA 17847

Mr. James Ward
Secretary-Treasurer
Wysox Community Chamber of Commerce
P.O. Box 63
Wysox, PA 18854

Mr. Barry Wickes
Secretary/Treasurer
PA Chamber of Commerce Executives
222 North Third Street
Harrisburg, PA 17101

Mr. Earle V. Wittpenn
Executive Secretary
Steel Valley Chamber of Commerce
1705 Maple Street, Suite 213
Homestead, PA 15120-1819

Ms. Mary Worthington
Executive Director
Wellsboro Area Chamber of Commerce
P.O. Box 733
Wellsboro, PA 16901

Private Industry Council Directors

Ms. Sylvia Anderson
Executive Director
York County Employment and
Training Program
118 Pleasnat Acres Road
York, PA 17402

Mr. Francis J. Carey
Executive Director
Delaware County Office of
Employment and Training
321 West State Street
Media, PA 19063

Mr. Ronald Haag
Training Administrator
West Central Job Partnership
585 East State Street
Sharon, PA 16146

Ms. Marsha Hunter
Director for Human Resource Dev.
Southern Alleghenies Planning and
Development Commission
1506 - 11th Avenue
Altoona, PA 16601

Mr. Fred F. Lettieri
Executive Director
Scranton-Lackawanna Human
Development Agency, Inc.
200 Adams Avenue
Scranton, PA 18503

Mr. Charles F. Luce
Executive Director
Luzerne County Human Resources
Development Department
Job Training Partnership Act
53 Blackman Street
Wilkes-Barre, PA 18702-4299

Mr. James L. MacDonald
Executive Director
Susquehanna Employment and Training Corp.
Hudson Building
2107 North Sixth Street
Harrisburg, PA 17110

BEST COPY AVAILABLE

Mr. Edward J. Murray
Executive Director
Private Industry Council of
Lehigh Valley, Inc.
1601 Union Boulevard
P.O. Box 2287
Allentown, PA 18001

Mr. Ronald Painter
Executive Director
TriCounty Manpower Administration
Room 121
717 Morton Avenue
Butler, PA 16001-3394

Mr. David Pearson
Executive Director
Northwest PA Training Partnership
Consortium, Inc.
P.O. Box 1, Highway 322 East
Franklin, PA 16323

Mr. Bernard Powers
Director
County of Allegheny
Department of Federal Programs
Suite 200 Wood Street Commons
304 Wood Street
Pittsburgh, PA 15222

Mr. David P. Suski
Director
Washington/Greene County Job
Training Agency
Room 302
Courthouse Square
Washington, PA 15301

Mr. John V. Walsh, Jr.
Bucks Co. Office of Empl. & Trn.
Cross Keys Office Building
Routes 313 and 611
4259 Swamp Road
Doylestown, PA 18901

Mr. Bernard Zarko
Executive Director
Central Region Training Services, Inc.
Mt. View Complex
Route 225 South, P.O. Box 545
Shamokin, PA 17872

Pennsylvania Council on Vocational Education

Mr. Richard deLone
deLone and Kahn Associates
Suite 807
1518 Walnut Street
Philadelphia, PA 19102

Dr. Marion B. W. Holmes
Executive Director
Career and Vocational Education
School District of Philadelphia
734 Schuylkill Avenue
Philadelphia, PA 19146

Mr. Thomas W. O'Brien
Director
Center for Vocational Per. Prep.
Indiana University of PA
Reschini House
Indiana, PA 15704

Mr. Andree P. Phillips
President/CEO
Radiant Steel Products Co.
205 Locust Street
Williamsport, PA 17701

Mr. Dennis P. Rhen
Executive Director
PA Council on Vocational Education
Harrisburg Transportation Center
Suite 2-B
415 Market Street
Harrisburg, PA 17101-2302

Mr. Paul A. Sammartino
Voc. Ed./Spec. Ed.
6801 Kevin Drive
Bethel Park, PA 15102

BEST COPY AVAILABLE

Individuals Nominated by Interviewee

Mr. Elmer Gates
President
Fuller Company
P.O. Box 2040, Avenue C
Bethlehem, PA 18001

Ms. Carol Herrmann
Vice President for Administration
Penn State University
University Park, PA 16802

Mr. William J. Kuhnsman
President
Crowder Jr. Company
1818 Voltee Street
P.O. Box 659
Allentown, PA 18105

Mr. Sebastian Martorana
Professor of Education and Research
Center for the Study of Higher Education
Penn State University
University Park, PA 16802

Mr. Edward Nolan
Director of Governmental Relations
State System for Higher Education
333 Market Street
Harrisburg, PA 17102-0333

Mr. Gregg R. Taylor
Director of State Legislative Services
PA Association of Colleges and Universities
800 North Third Street
Harrisburg, PA 17102

Mr. Richter L. Voight
Director of Administrative Services
PA Association of Colleges and Universities
800 North Third Street
Harrisburg, PA 17102

The Honorable John White, Jr.
Secretary of Welfare
Room 333
Health and Welfare Building
Harrisburg, PA 17120

Intermediate Unit Directors

Dr. John A. Abbruzzese, Jr.
Executive Director
Colonial Northampton
 Intermediate Unit 20
299 Industrial Park
Nazareth, PA 18064

Dr. Robert M. Alspach
Executive Director
Schuylkill Intermediate Unit 29
Special Education Center
Box 130
Mar Lin, PA 17951

Dr. John K. Baillie
Executive Director
Chester County Intermediate Unit 24
1530 E. Lincoln Highway
Coatesville, PA 19320

Mr. Paul Bebla
Executive Director
Northeastern Education Intermediate Unit 19
120 Monahan Avenue
Dunmore, PA 18512

Mr. Harry J. Brownfield
Executive Director
Intermediate Unit 1
1148 Wood Street
California, PA 15419

Dr. Thomas P. Carey
Executive Director
Arin Intermediate Unit 28
Route 422, Box 175
Shelocta, PA 15774

Dr. Constance E. Clayton
Executive Director
Philadelphia Intermediate Unit 26
Parkway at 21st Street
Philadelphia, PA 19103

Mr. Clari A. Goodman, Jr.
Executive Director
Blast Intermediate Unit 17
469 Hepburn Street
Williamsport, PA 17701

BEST COPY AVAILABLE

Dr. Dennis Harken
Executive Director
Montgomery County Intermediate Unit 23
Montgomery Ave. and Pa.
Erdenheim, PA 19118

Dr. Dale E. Heller
Executive Director
Tuscarora Intermediate Unit 11
R.D. 1, Box 170A
McVeytown, PA 17051

Dr. Roger S. Hertz
Executive Director
Berks County Intermediate Unit 14
2900 St. Lawrence Avenue
Reading, PA 19606

Dr. Arnold Hillman
Executive Director
Riverview Intermediate Unit 6
R.D. 2, Greencrest Dr.
Shippenville, PA 16254

Dr. Edgar J. Holtz
Allegheny Intermediate Unit 3
200 Commerce Court
Pittsubrgh, PA 15219

Dr. Irvin A. Karam
Executive Director
Lincoln Intermediate Unit 12
P.O. Box 70
New Oxford, PA 17350

Dr. John A. Leuenberger
Executive Director
Northwest Tri-County Intermediate Unit 5
252 Waterford Street
Edinboro, PA 16412

Mr. R. Gene Malarbi
Executive Director
Westmoreland Intermediate Unit 7
222 E. Pittsburgh Street
Greensburg, PA 15601

Dr. Francis W. Matika
Executive Director
Beaver Valley Intermediate Unit 27
225 Center Grange Road
Aliquippa, PA 15001

Dr. Gary L. Miller
Midwestern Intermediate Unit 4
Maple Street
Grove City, PA 16127

Dr. John E. Nagle
Executive Director
Capital Area Intermediate Unit 15
26 North Ninth Street
Lemoyne, PA 17043

Dr. Thomas F. O'Donnell, Jr.
Executive Director
Luzerne Intermediate Unit 18
368 Tioga Avenue
Kingston, PA 18704

Dr. Frank A. Rackish
Executive Director
Seneca Highland Intermediate Unit 9
119 Mechanic Street
Smethport, PA 16749

Dr. Nancy L. Robbins
Executive Director
Central Intermediate Unit 10
R.R. 1, Box 374
West Decatur, PA 16878

Dr. Jerry B. Stout
Executive Director
Carbon-Lehigh Intermediate Unit 21
2370 Main Street
Schnecksville, PA 18078

Mr. Joseph Tarris
Executive Director
Appalachia Intermediate Unit 8
119 Park Street
Ebensburg, PA 15931

BEST COPY AVAILABLE

Dr. Patrick F. Toole
Executive Director
Central Susquehanna Intermediate Unit 16
P.O. Box 213
Lewisburg, PA 17837

Dr. A. William Vantine
Executive Director
Bucks County Intermediate Unit 22
Rtes. 611 and 313
Doylestown, PA 18901

Dr. Richard C. Wallace, Jr.
Executive Director
Pittsburgh-Mount Olive Intermediate Unit 2
341 South Bellefield
Pittsburgh, PA 15213

Mr. Almon H. Wilson
Executive Director
Delaware County Intermediate Unit 25
6th and Olive Streets Sta.
Media, PA 19063

Dr. Harry T. Zechman, Jr.
Executive Director
Lancaster-Lebanon Intermediate Unit 13
1110 Enterprise Road
East Petersburg, PA 17520

Secondary Distributive Occupations Instructors

Mr. Wayne E. Bacon
Northeastern SHS
280 High Street
Manchester, PA 17345

Mr. James V. Gialanella
Tunkhannock HS
120 West Tioga Avenue
Tunkhannock, PA 18657

Ms. Connie M. Infield
State College Area HS
653 Westerly Parkway
State College, PA 16801

Mr. George H. McNeil
Wissahickon SHS
Houston & Dager Road
Ambler, PA 19002

Mr. Larry K. Shankweiller
Lehigh County AVTS
2300 Main Street
Schnecksville, PA 18078

BEST COPY AVAILABLE

Secondary Agricultural Education Instructors

Mr. Douglas Baer
Salisbury-Elk Lick JSHS
Smith Avenue
Salisburg, PA 15558

Mr. Jerald A. Brown
W. B. Saul HS of Ag Sc
7100 Henry Avenue
Philadelphia, PA 19128

Mr. Ronald L. Frederick
Twin Valley JSHS
RD 2
Elverson, PA 19520

Mr. Raymond O. Gaston
Schuylkill Co. AVTS-South
Pottsville-Minersville
Mar Lin, PA 17951

Mr. Thomas S. Gay
Reynolds JSHS
531 Reynolds Road
Greenville, PA 16125

Ms. Barbara J. Nealow
Dover Area HS
West Canal Street
Dover, PA 17315

Mr. Roger H. Reichenbach
Selinsgrove Area HS
North Broad Street
Selinsgrove, PA 17870

Mr. Elvin G. Summers
Huntingdon County AVTS
Box E
Mill Creek, PA 17060

Mr. Douglas J. Wagner
E. Northampton Co. AVTS
5335 Kesslerville Road
Easton, PA 18042

Adult Business Education

Ms. Dorothy G. Albertson
Erie County AVTS
8500 Oliver Road
Erie, PA 16509

Ms. Shirley M. Bartlett
Milton High School
700 Mahoning Street
Milton, PA 17847

Mr. Nelson Belford
Northeast High School
Algon Street & Cottman Avenue
Philadelphia, PA 19111

Mr. James D. Chadwick
Lebanon County AVTS
833 Metro Drive
Lebanon, PA 17042

Ms. Marge I. Christine
York County AVTS
2179 South Queen Street
York, PA 17402

Mr. Frederick Curcio
Bangor Area SHS
RD 2
Bangor, PA 18013

Ms. Loretta Dannenberg
Altoona AVTS
1500 Fourth Avenue
Altoona, PA 16602

Mr. William O. Garrett
Norristown Area HS
1900 Eagle Drive
Norristown, PA 19401

Ms. Delores Licastro
Seneca Highlands AVTS
Box 219 Edison Bates Drive
Port Allegany, PA 16743

BEST COPY AVAILABLE

Ms. Artemisia Macklin
JFK Adult AVTS
734 Schuylkill Avenue
Philadelphia, PA 19146

Ms. Tamara A. Matthews
Juniata-Mifflin Co. AVTS
Box 1010
Lewistown, PA 17044

Mr. Michael Varrato
Saegertown HS
Mook Road, Rd 1
Saegertown, PA 16433

Cooperative Education Instructors

Mr. Frederick M. Geringer
Cooperative Education
Columbia-Montour AVTS
R.D. 5
Bloomsurg, PA 17815

Ms. Bonnie L. Hartley
Cooperative Education
Intermediate Unit 1
1148 Wood Street
California, PA 15419

Mr. Leonard Lawrence
Vocational Education
Philadelphia City SD
21st at Parkway
Philadelphia, PA 19103

Mr. Don R. Shook
Cooperative Education
Red Lion Area SD
28-34 Windsor, Box 40
Windsor, PA 17366

Mr. Jeffrey Wimer
Audio-Visual Communications Tech
Mercer County AVTS
P.O. Box 152, Route 58
Mercer, PA 16137

Ms. Judy K. Yamshak
Supervisor, Cooperative Ed
Columbia Borough SD
901 Ironville Pike
Columbia, PA 17512

Ms. Deanna Yinger
Cooperative Education
York City SD
329 S. Lindbergh Avenue
York, PA 17405

BEST COPY AVAILABLE

Industrial Arts Instructors

Mr. James E. Cedel
General Shop
Blackhawk SD
500 Blackhawk Road
Beaver Falls, PA 15010

Mr. Michael G. Clark
General Shop
Council Rock SD
Twining Ford Road
Richboro, PA 18954

Mr. Joseph Craven
General Shop
Southeast Delco SD
Box 328, Delmar & Primos
Folcroft, PA 19032

Mr. Mark A. Dolphin
General Shop
York City SD
329 S. Lindbergh Ave.
York, PA 17405

Mr. Duane Eastburn
Wood Unit Shop
Avon Grove SD
20 Prospect Avenue
West Grove, PA 19390

Mr. Michael J. Fedak
General Shop
Pittsburgh SD
341 S. Bellefield Avenue
Pittsburgh, PA 15213

Mr. Stewart J. Green
General Shop
Chester-Upland SD
Melrose Avenue at 18th
Chester, PA 19013

Mr. Jacob L. Hopper
General Shop
Tredyffrin Easttown SD
First & Bridge Avenue
Berwyn, PA 19312

Mr. John B. Huntington
Mifflinburg Area SD
178 Maple Street, Box 285
Mifflinburg, PA 17844

Mr. Walter R. Jeranek
Electricity Unit Shop
Philadelpha City SD
21st at Parkway
Philadelphia, PA 19103

Mr. Kenneth Kackenmeister
General Shop
East Penn SD
640 MacUngie Avenue
Emmaus, PA 18049

Mr. Benjamin Kocher
General Shop
Scranton City SD
425 N. Washington Ave.
Scranton, PA 18503

Mr. Wayne D. McConahy
General Shop
Quakertown Comm SD
600 Park Avenue
Quakertown, PA 18951

Mr. Edgar D. Moore
General Shop
Interboro SD
9th & Washington Ave.
Prospect Park, PA 19076

Mr. Robert L. Myers
General Shop
Forest Hills SD
P.O. Box 158
Sidman, PA 15955

Mr. David L. Redcay
General Shop
West Shore SD
1000 Hummel Avenue
Lemoyne, PA 17043

BEST COPY AVAILABLE

Mr. Eric J. Rogalski
Metal Unit Shop
Valley Grove SD
429 Wiley Avenue
Franklin, PA 16323

Mr. Charles Scavo
General Shop
Carbondale Area SD
Brooklyn Street, Route 6
Carbondale, PA 18407

Mr. Lee W. Shoemaker
General Shop
Pennridge SD
1506 N. Fifth Street
Perkasie, PA 18944

Mr. James S. Starenchak
General Shop
Ligonier Valley SD
120 E. Main Street
Ligonier, PA 15658

Mr. Vergil Taylor
General Shop
Northwestern SD
1 Harthan Way
Albion, PA 16401

Mr. Kermit J. Wagner
General Shop
Greenwood SD
Box E, 405 E. Sunbury
Millerstown, PA 17062

Mr. Paul D. Wilson
General Shop
Neshannock Township SD
301 Mitchell Road
New Castle, PA 16105

Secondary Principals

Mr. Ray R. Baker
Principal
Juniata County SD
S. Seventh Street
Mifflintown, PA 17059

Mr. John Beck
Principal
Southmoreland SD
Parker & North High St.
Scottdale, PA 15683

Mr. Paul K. Boord
Principal
Albert Gallatin Area SD
R.D. #5, Box 175
Uniontown, PA 15401

Mr. John J. Czerniakowski
Principal
Mifflin County SD
201 Eighth Street
Lewistown, PA 17044

Mr. Richard H. Evans
Principal
Neshaminy SD
2001 Old Lincoln Hwy.
Langhorne, PA 19047

Mr. Charles Harkins
Principal
Philadelphia City SD
21st at Parkway
Philadelphia, PA 19103

Mr. Paul D. Hopkins
Principal
Armstrong SD
410 Main Street
Ford City, PA 16226

Mr. Stephen Iovino
Principal
Warwick SD
301 W. Orange Street
Lititz, PA 17543

BEST COPY AVAILABLE

Mr. Kenneth G. Koberlein
Principal
Danville Area SD
Pine & E. Mahoning St.
Danville, PA 17821

Mr. Toney J. Lucas
Principal
Chester-Upland SD
Melrose Avenue at 18th
Chester, PA 19013

Mr. Walter J. Lutz
Principal
Berwick Area SD
500 North Market St.
Berwick, PA 18603

Mr. Philip Rader
Principal
Panther Valley SD
Box 40
Lansford, PA 18232

Mr. John J. Schwoebel
Principal
North Allegheny SD
200 Hillvue Lane
Pittsburgh, PA 15237

Mr. John H. Sechriest
Principal
Warren County SD
East St. & 3rd Avenue
Warren, PA 16365

Mr. William J. Toomey, Jr.
Principal
Blue Mountain SD
Administration Bldg.
Orwigsburg, PA 17961

Mr. Constantin Turco
Principal
Pittston Area SD
5 Stout St. Yatesville
Pittston, PA 18640

Mr. Jeffrey F. Zackon
Principal
Oley Valley SD
Oley, PA 19547

BEST COPY AVAILABLE

AVTS and Intermediate Unit Personnel

Mr. Dennis Acker
Altoona AVTS
1500 Fourth Avenue
Altoona, PA 16602

Mr. Bertram R. Bader
Philadelphia City SD
21st at Parkway
Philadelphia, PA 19103

Mr. Grover Bledsoe
Lancaster County AVTS
1730 Hans Herr Drive
Willow St., PA 17584

Mr. Donald M. Brought
Juniata-Mifflin Co. AVTS
Box 1010, Pit & Bel VN
Lewistown, PA 17044

Mr. Richard E. Cardell
North Montco AVTS
Sumneytown Pike
Lansdale, PA 19446

Mr. John P. Cressman
Lehigh County AVTS
2300 Main Street
Schnecksville, PA 18078

Mr. Robert L. Curatola
Philadelphia City SD
21st at Parkway
Philadelphia, PA 19103

Mr. Henry B. Downs
York County AVTS
2179 S. Queen Street
York, PA 17402

Mr. Frank Dranko
Lenape AVTS
2215 Chaplin Avenue
Ford City, PA 16226

Mr. Gary T. Fish
Monroe County AVTS
P.O. Box 66
Bartonsville, PA 18321

Mr. Gerald Frain
E. Westmoreland Co. AVTS
849 Hillview Avenue
Latrobe, PA 15650

Mr. Robert W. Friedline
Somerset County AVTS
R.D. 5, Vo-Tech Road
Somerset, PA 15501

Mr. Chester Furiek
Middle Bucks County AVTS
P.O. Box 317
Jamison, PA 18929

Mr. Bernard Gurley
Philadelphia City SD
21st at Parkway
Philadelphia, PA 19103

Ms. Michelle A. Henninger
Chambersburg Area SD
511 South 6th Street
Chambersburg, PA 17201

Mr. Paul Hinde
Bucks County AVTS
Wistar Road
Fairless Hills, PA 19030

Mr. Cecil Johnson
Dauphin County AVTS
6001 Locust Lane
Harrisburg, PA 17109

Mr. Clyde Johnson
HBG-Stilton-Highspr AVTS
P.O. Box 5100
Harrisburg, PA 17110

Mr. Ray E. Konetsky
Venango County AVTS
1 Vo-Tech Drive
Oil City, PA 16301

BEST COPY AVAILABLE

Mr. Thomas A. Lysiak
Lawrence County AVTS
750 Wood Street
New Castle, PA 16101

Mr. Francis D. Mano
Beaver County AVTS
Poplar Drive
Monaca, PA 15061

Ms. Linda J. Marley
Berks County AVTS
Administration Office
R.D. 1
Leesport, PA 19533

Ms. Lula McCoy
Philadelphia City SD
21st at Parkway
Philadelphia, PA 19103

Mr. William Minisiveris
Erie County AVTS
8500 Oliver Road
Erie, PA 16509

Ms. Dorothy M. Minium
Sun AVTS
815 East Market Street
New Berlin, PA 17855

Mr. James D. Modispacher
Pittsburgh SD
341 S. Bellefield Ave.
Pittsburgh, PA 15213

Ms. Joan M. Pucillo
Bethlehem AVTS
3300 Chester Avenue
Bethlehem, PA 18017

Ms. Karen Rex
Carbon County AVTS
150 West 13th Street
Jim Thorpe, PA 18229

Mr. Edward G. Robinson
Philadelphia City SD
21st at Parkway
Philadelphia, PA 19103

Mr. Dale A. Santner
Northwest Tri-County IU
252 Waterford Street
Edinboro, PA 16412

Ms. Maria Snyder
C. Montgomery Co. AVTS
New Hope & Plymouth
Norristown, PA 19401

Mr. Roy Spinka
Reading-Muhlenberg AVTS
P.O. Box 13068
Reading, PA 19612

Mr. Mark Thomas
Greater Johnstown AVTS
445 Schoolhouse Road
Johnstown, PA 15904

Mr. Steven Traub
Columbua-Montour AVTS
R. D. 5
Bloomsburg, PA 17815

Mr. Kirtland Walp
West Side AVTS
75 Evans St. Pringle
Kingston, PA 18704

Mr. Ronald Warner
Forbes Road East AVTS
Beatty & Cooper Road
Monroeville, PA 15146

Ms. Rebecca Weiler
Philadelphia City SD
21st at Parkway
Philadelphia, PA 19103

Mr. Alfred Zubrzycki
Delaware County AVTS
6th & Olice Streets
Media, PA 19063

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Industrial Development, Corporations, and Authorities

Ms. Myrtle E. Averi
Secretary
Lilly-Washington Ind. Dev. Assn., Inc.
329 Portage Street
Lilly, PA 15938

Mr. Clyde H. Bookheimer
Secretary
Fulton Co. Ind. Dev. Authority
100 Lincoln Way East
McConnellsburg, PA 17233

Mr. Gordon Boop
Treasurer
Columbua County Ind. Dev. Authority
11 West Main Street
P.O. Box 339
Bloomsburg, PA 17815

Mr. Robert Campbell
Secretary
Perry Co. Ind. Dev. Authority
c/o County Comm. Office
Court House
New Bloomfield, PA 17068

Mr. James W. Doup
President
Red Lion Business Association
P.O. Box 233
Red Lion, PA 17356

Mr. David M. Feehan
Executive Director
East Liberty Development, Inc.
Suite 200
5907 Pennsylvania Avenue
Pittsburgh, PA 15206

Mr. L. Craig Harris
Secretary
Jersey Shore Ind. Dev. Corp.
128 South Main Street
P.O. Box 505
Jersey Shore, PA 17740

Mr. John P. Kellner
President
Gt. Tamaqua Ind. Dev. Enterprises
Broad and Berwick Streets
Tamaqua, PA 18252

Mr. Leonard Kello
S.O.L.I.D.A., Inc.
400 Jackson Avenue
Susquehanna, PA 18847

Mr. Warren R. Leonard
Vice President
Metro Action, Inc.
426 Mulberry Street
P.O. Box 431
Scranton, PA 18501

Ms. Sandra McCorkle
Berwyn-Devon Business Assoc.
P.O. Box 621
Devon, PA 19333

Mr. Paul V. Ressler
Solicitor
Wilkinsburg Borough Industrial and
Commercial Development Authority
729 Wood Street
Wilkinsburg, PA 15221

Mr. Francis Rioux
Narberth Business Association
Southwind Studios
238 Haverford Avenue
Narberth, PA 19072

Mr. Allen Shaffer
Solicitor
Upper Dauphin Co. Ind. Dev. Authority
129 Market Street
P.O. Box 338
Millersburg, PA 17061

Mr. Joseph Sniscak
Chairman
Carbon County Ind. Dev. Authority
57 Broadway
Jim Thorpe, PA 18229

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Act 173 Ad Hoc Committee Members

Mr. Robert Edwards
Chief, Voc Oprs. Div.
Bureau of Vocational Education
Department of Education
333 Market Street
Harrisburg, PA 17126-0333

Mr. E. Jerome Kern
Higher Education Association
Div. of Academic Program Approval
Department of Education
333 Market Street
Harrisburg, PA 17126-0333

Dr. Charlotte Mastellar
Dean of Business, Science and Technology
Lehigh County Community College
2370 Main Street
Schnecksville, PA 18078

Dr. James E. Middleton
Dean of Academic Affairs
Williamsport Area Comm. College
1005 West Third Street
Williamsport, PA 17701-5799

Dr. Donald R. Rentschler
Director
Bureau of Academic Programs
Department of Education, 5th Floor
333 Market Street
Harrisburg, PA 17126-0333

Dr. Elwood A. Shoemaker
Executive Director
Commission for Community Colleges
800 North Third Street
Harrisburg, PA 17102

Dean Richard C. Skinner
Assistant Dean for Career Prog.
Bucks County Community College
Swamp Road
Newtown, PA 18940

Dr. Bernard Solon
VP of Academic Affairs
Harrisburg Area Comm. College
3300 Cameron Street
Harrisburg, PA 17110

Individuals Nominated by Interviewee

Dr. Leonard Azzaraso
c/o Frankford High School
Oxford and Wakeling Streets
Philadelphia, PA 19124

Mr. Herman P. Baker, Jr.
8400 Gibbs Place
Philadelphia, PA 19153

Mr. J. Kushner
3201 Chelsea Place
Philadelphia, PA 19114

Mr. Klint Lee
36 S. Fallon Street
Philadelphia, PA 19139

Mr. Leon Shore
Fund Coordinator
PFT Health and Welfare Fund
1816 Chestnut Street
Philadelphia, PA 19103

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Professional Education Association Officers

Ms. Thelma Becker
President
Council of Organizations for Education
139 Harleysville Pike
Souderton, PA 18964

Mr. Donald M. Carroll, Jr.
Executive Director
PA League of Urban Schools
1201 N. 6th Street
Harrisburg, PA 17102

Mr. Dawson K. Detwiler
President
PA Association of Rural and
Small Schools
901 Ironville Pike
Columbia, PA 17512

Mr. Richard R. Dumaresq
Executive Director
PA Association of Private School
Administrators, Inc.
229 S. 4th Street
Steelton, PA 17113

Mr. Robert V. Flynn
Executive Director
PA Association for Supervision and
Curriculum Development
P.O. Box 1056
McMurray, PA 15317

Ms. Barbara A. Haas
President
PA Business Education Association
R.D. 2, Box 187
Mertztown, PA 19539

Dr. Edgar J. Holtz
Executive Director
PA Association of Intermediate Units
Allegheny Intermediate Unit
200 Commerce Court Building
Pittsburgh, PA 15219

Ms. Ann Lepsi
Executive Director
PA Federation of Teachers
1816 Chestnut Street
Philadelphia, PA 19103

Mr. Frank S. Manchester
Executive Director
PA Association of Secondary
School Principals
801 North Second Street
Harrisburg, PA 17102

Mr. Francis J. Michelini
President
Commission for Independent Colleges
and Universities
800 N. Third Street
Harrisburg, PA 17102

Ms. Ann N. Moniot
Executive Secretary
PA Middle School Association
P.O. Box 7258
Pittsburgh, PA 15213

Mr. Kenneth P. Mortimer
Co-executive Secretary
Commission for Commonwealth
Universities
201 Old Main
University Park, PA 16802

Mr. J. Richard Murr
Executive Director
Vocational Administrators of PA
515 Kissel Hill Road
Lititz, PA 17543

Mr. Anthony Newman
Executive Director
PA State Education Association
400 North Third Street
Harrisburg, PA 17101

Mr. Clifford Nichols, Jr.
Executive Director
PA Association of Independent Schools
17 Linden Place
Sewickley, PA 15143

Mr. Joseph V. Oravitz
Executive Director
PA School Boards Association
774 Limekiln Road
New Cumberland, PA 17070

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Mr. John A. Polto
President
PA Vocational Association
6001 Locust Lane
Dauphin Co. Tech. School
Harrisburg, PA 17109

Ms. Rita M. Reichert
President
PA Association of College Admission
Counselors
Conestoga High School
Conestoga and Irish Roads
Berwyn, PA 19312

Dr. Irena B. Sandler
President
PA Association for Gifted Education
3028 Potshop Road
Norristown, PA 19403

Ms. Linda Schaeffer
Executive Secretary
PA Home Economics Association, Inc.
R.D. 2, Box 95
Ford City, PA 16226

Mr. Elwood A. Shoemaker
Executive Director
Commission for Community Colleges
800 N. Third Street
Harrisburg, PA 17102

Mrs. Robert Stanley
Administrative Assistant
PA Congress of Parents and Teachers
4804 Derry Street
Harrisburg, PA 17111

Mr. Stinson Stroup
Executive Director
PA Association of School Administrators
801 North Second Street
Harrisburg, PA 17102

Dr. Charles Territo
President
PA School Counselors Association
611 Field Club Ridge Road
Pittsburgh, PA 15328

Mr. Gary B. Young
President
PA Association of Colleges and
  Universities
800 N. Third Street
Harrisburg, PA 17102

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PIC Chairpersons

Mr. Albert E. Alsedek
Executive Vice President
Lancaster General Hospital
P.O. Box 3555
Lancaster, PA 17603

Ms. Barbara Bateman
Executive Vice President
Beaver Valley Chamber of Commerce
1008 7th Avenue
Beaver Falls, PA 15010

Mr. Marvin Berger
President
Rayco Service Center
244 Baltimore Pike
Springfield, PA 19064

Mr. William Cherkes
President
Ann Will Garmet Company
207 Wyoming Avenue
Kingston, PA 18704

Mr. Ronald N. Fear
General Manager
Aristokraft
Division of Beatrice Company, Inc.
P.O. Box 5
Littlestown, PA 17340

Mr. James F. Fetter
Owner
Pine Burr Inn
CRTS
Route 225 South, P.O. Box 545
Shamokin, PA 17872

Mr. Robert S. Gombos
VP of Human Resources and Dev.
Pennsylvania Power and Light Company
Two North Ninth Street
Allentown, PA 18103

Ms. Elaine Heider
Owner
The Elder Agency
124 Horseshoe Circle
Pennsylvania Furnace, PA 16865

Mr. Charles Pryor
Managerial Staff
McAnnallen Corporation
2155 Park Avenue
P.O. Box 558
Washington, PA 15301

Mr. James Reagle
Harrigton Machine and Tool
Box 140-A, R.D. #1
Franklin, PA 16323

Mr. Lloyd Schrecengost
Associate Chairperson
Alltel Pennsylvania, Inc.
201 North Jefferson Street
Kittanning, PA 16201

Mr. Jack Snyder
Executive Vice President
Delaware Valley Scrap Company
P.O. Box 518
Bristol, PA 19007

Mr. Eugene Troxelle
Manager, Education and Training
Dana Corporation
P.O. Box 13459
Reading, PA 19612-3459

Dr. John E. Walsh
Executive Director
WVIA - TV
Avoca, PA 18641

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Teacher Educators from Teacher Centers

Dr. Richard Adamsky
Coordinator
Vocational Education Programs
Temple University
Ritter Hall Annex
Philadelphia, PA 19122

Dr. Samuel M. Curtis
Head
Agriculture and Extension Education
Pennsylvania State University
102 Armsby Building
University Park, PA 16802

Dr. Marvin Hirshfeld
Program Coordinator
Distributive Education
Temple University
Ritter Hall Annex
Philadelphia, PA 19122

Dr. Bernard Moreau
Chairperson
Administrative Services
Indiana University of PA
McElhaney Hall
Indiana, PA 15705

Dr. James Pellegrino
Trade and Industrial Program
University of Pittsburgh
4M21 Forbes Quadrangle
230 South Banquet Street
Pittsburgh, PA 15260

Dr. Thomas Walker
Program Coordinator
Trade and Industrial Education
Temple University
Ritter Hall Annex
Philadelphia, PA 19122

Dr. Susan F. Weiss
Professor in Charge
Home Economics Education
Pennsylvania State University
Rackley Building
University Park, PA 16802

Ms. Jane Whisner
Trade and Industrial Education
Indiana University of PA
Reschini House
Indiana, PA 15705

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Individuals Nominated by Interviewees

Mr. Dennis Becker
Standard Offset Printing
426 Pearl Street
Reading, PA 19602

Mr. Lawon Booker
Director, Personnel
Glen Gery Corporation
P.O. Box 7001
Wyomissing, PA 19601

Mr. C. P. Brezeale
AT&T MicroElectronics
P.O. Box 13396
Reading, PA 19612

The Rev. William Brown
Lancaster School Board
225 W. Orange St. Box
Lancaster, PA 17603

Mr. Robert Bukovsky
Director
Berks Co. Employment & Training Office
15 S. Eighth Street
Reading, PA 19602

Mr. Chet Chelsey
Garrett-Buchanan Paper Company
P.O. Box 1376
Reading, PA 19602

Mr. Louis Dimasi
President
Penn Technical Institute
110 Ninth Street
Pittsburgh, PA 15222

Mr. William Fichter
Office of Vocational Rehab
625 Cherry Street
Reading, PA 19602

Mr. John Foster
Carlisle Senior High School
723 West Penn Street
Carlisle, PA 17013

Mr. Thomas Frank
AT&T Technologies, Inc.
2525 N. 15th Street
P.O. Box 13396
Reading, PA 19612

Mr. Irv Godbolte
Manager
Employment/EEO/AA
Met-Ed Corporation
P.O. Box 452
Reading, PA 19640

Ms. Gloria Heffner
Linden Corporation
311 N. Tulpehocken Road
Reading, PA 19601-0125

Mr. William Henry
Bethlehem Technical School
Bethlehem, PA 18017

Mr. Alan Hohl
East Penn Manufacturing Company
Deka Road
Lyon Station, PA 19536

Mr. Ken Ruch
Executive Director
PA Industrial Clubs of America
Pennsylvania State University
University Park, PA 16802

Mr. Robert A. Runkle
Director
Berks Vocational-Technical School
Administrative Office
R.D. 1, Box 1370
Leesport, PA 19533

Mr. Ronald Stammel
Director
Dauphin County Technical School
6001 Locust Lane
Harrisburg, PA 17109

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Mr. Norman States
T&I Supervisor
York County AVTS
2179 South Queen Street
York, PA 17402

Mr. Nicholas Terzopoulos
Director of Faculty
American Business Institute
46 South Eleventh Street
Philadelphia, PA 19107

Dr. Samuel P. Varano
Assistant Superintendent
Governor Mifflin School District
Box C750, 10 S. Waverly Street
Shillington, PA 19607

Secondary Marketing Education Instructors

Mr. Michael B. Chanoff
Overbrook HS
59th Street and Lancaster Avenue
Philadelphia, PA 19131

Ms. Pamela E. Fox
Altoona AVTS
1500 Fourth Avenue
Altoona, PA 16602

Ms. Lois K. LaManna
Penn Hills SHS
12200 Garland Drive
Penn Hills, PA 15235

Mr. Gerald Millman
Simon Muhr School
North 12th and Allegheny Avenue
Philadelphia, PA 19133

Ms. Marlene A. Romano
Wissahickon SHS
Houston & Dager Road
Ambler, PA 19002

Mr. Harold J. Shutt
Central Columbia SHS
4777 Old Berwick Road
Bloomsburg, PA 17815

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Adult Agriculture Instructors

Mr. Michael S. Buehrle
Monroe County AVTS
Box 66 Laurel Lake Drive
Bartonsville, PA 18321

Mr. Eric Corle
Northern Bedford Co. JSHS
Loysburg, PA 16659

Mr. William Hess
Cumberland Valley HS
6746 Carlisle Pike
Mechanicsburg, PA 17055

Mr. Roy H. Johnston
Franklin County AVTS
2463 Loop Road
Chambersburg, PA 17201

Mr. Paul Yesavage
Schuylkill Co. AVTS-North
Route 61
Frackville, PA 17931

Adult Marketing Education Instructors

Ms. Bernadette Donati
Carbon County AVTS
150 W. 13th Street
Jim Thorpe, PA 18229

Ms. Susan M. Dowhower
Lebanon County AVTS
833 Metro Drive
Lebanon, PA 17042

Ms. Sandra Greco
Schuylkill Co. AVTS-North
Route 61
Frackville, PA 17931

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Secondary Business Education Instructors

Ms. Debra Abel
Montour SHS
Clever Road
McKees Rocks, PA 15136

Mr. Allen S. Baker
Karns City HS
Karns City, PA 16041

Ms. Ruth L. Corbin
Big Spring High School
RD 2, Box 98
Newville, PA 17241

Mr. Allen J. DiMarco
Loyalsock Twp. SHS
1801 Loyalsock Drive
Williamsport, PA 17701

Ms. Carole N. Foster
Berwick Area SHS
1100 Fowler Avenue
Berwick, PA 18603

Mr. Calvin J. Gates
Lebanon SHS
1000 S. Eighth Street
Lebanon, PA 17042

Ms. Phyllis D. Holden
Germantown High School
Germantown Avenue-High Street
Philadelphia, PA 19144

Ms. Linda Kozuch
Yough SHS
99 Lowber Road
Herminie, PA 15637

Ms. Sharon V. Malizia
Cameron County JSHS
Woodland Avenue
Emporium, PA 15834

Mr. Marsha McKay
Iroquois JSHS
4301 Main Street
Erie, PA 16511

Ms. Doris J. Rill
Kennard-Dale High School
RD 1, Box 26
Fawn Grove, PA 17321

Mr. Willard E. Stewart
Juniata Valley JSHS
RD 1
Alexandria, PA 16611

Ms. Pamela Todd
Greensburg-Salem SHS
65 Mennel Drive
Greensburg, PA 15601

Ms. Inez M. Wilczek
Penn Wood High School
Essex and Green Avenue
Lansdowne, PA 19050

Mr. Thomas M. Williams
Northern Chester Co. AVTS
Charlestown Road
Phoenixville, PA 19460

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CHAPTER 6

LIST OF INDIVIDUALS INTERVIEWED
Pennsylvania Vocational-Technical Education Study

Adamsky, Dr. Richard
Teacher Educator, Vocational Education
Temple University

Ahearn-Erikson, Dr. Anne
Coordinating Supervisory Instructional Specialist for Business and Marketing Education
Pittsburgh Public Schools

Allen, Ms. Diane
Allied Health Recruitment
Hospital of the University of Pennsylvania

Amato, Dr. Anthony
Curriculum and Instruction, College of Education
Temple University

Anderson, Mr. Paul
Assistant Principal
South Williamsport Area High School

Bacas, Dr. Charles
Governor's Office

Barr, Mr. Scott
Bureau of Policy and Planning
Department of Commerce

Bartholomew, Dr. Ralph E.
Saul High School of Agriculture Sciences, Philadelphia City Schools

Baumhardt, Mr. Peter
Western Regional Office

Beck, Dr.
Vocational Teacher
New Hope-Solebury Junior-Senior High School

Beck, Ms.
Vocational Teacher
New Hope-Solebury Junior-Senior High School

Belardo-Cox, Ms. Amelia
Urban League--Lancaster

Berdick, Ms. Jeanne
Pittsburgh Chamber of Commerce

Berry, Dr. Grant
Dean of Development
Williamsport Area Community College

Billops, Mr. Larry
Economic Development and Employment Division
Urban League of Philadelphia

Bloom, Mayor Jessie
City of Williamsport

Blyer, Mr. Butch
Marketing and Distributive Education
Pennsylvania Department of Education

Boelhouerwer, Mr. Douglas
Division of Nonpublic and Private Schools
Pennsylvania Department of Education

Bondurant, Mr. Milton J.
President
Urban League of Lancaster County, Inc.

Bradshaw, Mr. William
Director of Experiential Learning
Williamsport Community College

Bright, Mr. James A.
Principal
New Hope-Solebury Junior-Senior High School

Bruhn, Ms. H. Jean
Patient Care Representative
Lancaster General

Burley, Dr. Richard
Director
Lancaster County AVTS

Butcher, Mr. Louis
Human Relations Committee--Lancaster

Butzow, Dr. John
Acting Dean, College of Education
Indiana University of Pennsylvania

Caffrey, Ms. Helen
Senate Staff

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Campbell, Mr. Gary
Director
Lancaster County AVTS--Brownstown

Christopher, Dr. John
Division of Adult Basic Education
Pennsylvania Department of Education

Christopher, Mr. Frank
Staff Director
House Education Committee

Clark, The Honorable Augusta A.
Philadelphia City Council

Collins, Mr. Allen
Philadelphia City Schools

Comprehensive High School Assistant Principal
Philadelphia City Schools

Confino, Ms. Diana
Senate Staff

Counselor
McCaskey High School

Cullen, Ms. Jaqueline
Director, Bureau of Vocational and Adult Education
Pennsylvania Department of Education

Culpepper, Ms. Carol
Director of Staff and Porgrams for Academic Affairs
Williamsport Community College

Curtis, Dr. Carroll
Economic Development--Quick Start
Pennsylvania Department of Education

Curtis, Dr. Samuel
Department Head, Agricultural and Extension Education
Pennsylvania State University

Davis, Ms. Glendeen
Civil Rights Coordinator
Pennsylvania Department of Education

Dent, Dr. Benjamin
Assistant Director, Agriculture, T&I, and Industrial Arts Technology
Philadelphia City Schools

Dimasi, Mr. Louis
Pennsylvania Association of Private School Administrators
President, Penn Technical Institute

Dittenhafer, Dr. Clarence
Research Associate, Bureau of Vocational and Adult Education
Pennsylvania Department of Education

Doyle, Ms. Mary Beth
Director, Handicapped Services
Community College of Alleghany County

Drews, Ms. Donna
Bureau of Policy and Planning
Department of Commerce

Ducette, Dr. Joseph
Assistant Dean, College of Education
Temple University

Dunn, Mr. David, employer
Berks County

Edgar, Dr. Irving
Bureau of Curriculum and Instruction
Pennsylvania Department of Education

Edwards, Mr. Robert
Division of Vocational Operations
Pennsylvania Department of Education

Farmer, Ms. Gwen
Office of Equal Educational Opportunity
Pennsylvania Department of Education

Finch, Ms. Penny
Reading Area Community College

Finn, Mr. James P.
Vocational Educator
South Vo-Tech High School--Pittsburgh

Fuget, Dr. Charles
Commissioner, Higher Education
Pennsylvania Department of Education

Gaige, Dr. Frederick H.
Campus Executive Officer
Pennsylvania State University--Berks Campus

Garland, Dr. Peter
Planning and Research
Pennsylvania Department of Education

Garrity, Mr. Robert
Millwright Council

Gaston, Ms. Clare
Chief, Business Education
Pennsylvania Department of Education

Geer, Mr. Edward
Director of Secondary Vocational Program
Williamsport Community College

Gillespie, Mr. Tony
Private Industry Council

Goettmann, Mr. Thomas L.
Supervisory Instructional Specialist for Technology and T&I
Pittsburgh Public Schools

Good, Dr. William
Director
Middle Bucks County AVTS

Gray, Dr. Ken
Professor, Vocational Education
Pennsylvania State University

Haas, Dr. Frederica
Bureau of Teacher Preparation and Certification
Pennsylvania Department of Education

Haller, Mr. Dean
Vice President, Personnel
Pittsburgh National Bank

Harosky, Dr. Joseph
Director
Upper Bucks County AVTS

Harrison, Mr. Robert
Eastern Region
Pennsylvania Department of Education

Hartsfield, Ms. Millicent
Career Development
Philadelphia City Schools

Henderson, Dr. James E.
Superintendent
Reading Public Schools

Herman, Ms. Carol
Associate Vice President
Pennsylvania State University

Hermanowicz, Dr. Henry
Dean, College of Education
Pennsylvania State University

Herr, Dr. Edwin
Head, Counseling and Educational Psychology
Pennsylvania State University

Hertz, Dr. Roger S.
Executive Director
Berks County Intermediate Unit #14

Hinds, Ms. Carol
Coordinator for VEMIS and Advisory Committee
Pittsburgh Public Schools

Hoffman, Ms. Margaret
Western Regional Office

Horne, Mr. Justin
Executive Director
Pittsburgh Chamber of Commerce

Jackson, Mr. Scott D.
Executive Vice President
Building Industry Association of Lancaster County

James, Mr. George
Employer
Berks County

Jamula, Ms. Melissa
Vocational Teacher
Reading Public Schools

Jones, Mr. Ted
Advisory Committee--Philadelphia

Kabakjian, Mr. William
Supervisor, Industrial Arts
Philadelphia City Schools

Kachniasz, Mr. Steve
Director
Lancaster County AVTS--Mount Joy

Kaplan, Mr. Samuel
Assistant Director, Vocational Education
Philadelphia City Schools

Kelly, Ms. Janice
ACT Coordinator
Community College of Alleghany County

Kembler, Mr. Blaine
Central Region
Pennsylvania Department of Education

Kennedy, Ms. Kathleen
Equal Opportunity Advisor for Vocational Education
Pennsylvania Department of Education

Klink, Ms. Barbara
Vocational Teacher
Reading Public Schools

Knide, Dr. Oscar W., Jr.
Superintendent
Williamsport Area School District

Knouse, Mr. Robert
Advisory Committee--Philadelphia

Kozial, Dr. Steve
Department Head, College of Education
University of Pittsburgh

Kratz, Mr. Richard
Dean of Students
Reading Area Community College

Krieble, Mr. Ronald
Chief, Industrial Arts Program
Pennsylvania Department of Education

LaBelle, Dr. Thomas
Dean, College of Education
University of Pittsburgh

Lamb, Mr. Steven
Employer
IBM Corporation

Laughlin, Mr. Jesse
Palmer School (Business and Trade)

Lee, Mr. Robert
Director
Berks County AVTS--East

Letteney, Dr. Alice
Academic Dean
Bucks County Community College

Logan, Dr. William
Basic Education Support Services
Pennsylvania Department of Education

Lungstrum, Dr. Ruth M.
Teacher Educator
University of Pittsburgh

Lutz, Mr.
Counselor
Solanco High School

Magliocco, Mr. Edward
Dobbins Vocational Technical School
Philadelphia City Schools

Maguire, Mr. Lou
Advisory Committee--Philadelphia

Mahoning, Mr. Douglas
Supervisor
Philadelphia City Schools

Malley, Mr. Thierry
House of Representatives

Manchester, Dr. Frank
Pennsylvania Association of Secondary School Principals

Martin, Dr. William J.
Dean of Student Services
Williamsport Community College

Markowski, Mr. Al
Middle School Supervisor
Pittsburgh Public Schools

McNallay, Dr. Thomas
Counselor
Williamsport Community College

McNamara, Mr. Robert
Pennsylvania Department on Aging

Micheline, Dr. Francis
Commission for Independent Colleges and Universities

Middleton, Mr. James E.
President
Williamsport Community College

Miller, Ms. Barbara
Associate Dean, Community Services and Continuing Education
Bucks County Community College

Miller, Mr. Kenneth
Supervisor
Philadelphia City Schools

Miller, Mr. Peter
Reading Area Community College

Miller, Ms. Virginia
Vocational Teacher
Reading Public Schools

Mitchell, Mr. Keith
Manager of Operations
State Job Training Coordinating Council

Monico, Dr. Fred
Director, Vocational Education
Pittsburgh Public Schools

Nagle, Dr. John E.
Executive Director
Capital Area Intermediate Unit #15

Naney, Mr. William
Vocational Teacher
Reading Public Schools

Nelsen, Dr. Anne
Long Range Planning
Pennsylvania State University

Nolan, Dr. Edward
Division for Governmental Relations

Nosal, Mr. Anthony
Western Region
Pennsylvania Department of Education

O'Brien, Dr. Thomas
Teacher Educator, Indiana University of Pennsylvania
Pennsylvania Council on Vocational Education

Omaha-Boy, Ms. Nancy
Reading Area Community College

Oravitz, Dr. Joseph
President
Pennsylvania School Boards Association

Pease, Mr. Robert
Executive Director
Allegheny Conference on Economic Development

Pellegrino, Dr. James
Director of Graduate Studies and Vocational Education
University of Pittsburgh

Pemple, Mr. Lee
Industrial Arts
Pennsylvania Department of Education

Peterson, Dr. Anne
Dean, College of Health and Human Development
Pennsylvania State University

Petty, Mr. Donald B.
Communication and Training
Science Press, Lancaster

Place, Dr. Roger
Superintendent
Lancaster Schools

Polto, Mr. John A.
President, Pennsylvania Vocational Association
Educator, Dauphin County Technical School

Porio, Mr. Joseph
Assistant Director, Vocational Education
Pittsburgh Public Schools

Posen, Mr. Johannes
Advisory Committee--Philadelphia

Ray, Ms. Carol P.
Supervisor
Philadelphia City Schools

Reading Area Community College Students (four students)
Reading Area Community College

Reading, Mr. Larry
Chief, Agriculture Education
Pennsylvania Department of Education

Reazor, Mr. James
Employer
Berks County

Reid, Mr. Morris H.
Randolph Skills Center
Philadelphia City Schools

Reilly, Mr. William
Division of Vocational Education Planning, Development,
  Evaluation, and Research Services
Pennsylvania Department of Education

Reynolds, Ms. Vera
PTO Organization

Rhen, Mr. Dennis
Executive Director
Pennsylvania Council for Vocational Education

Richmond, Mr. Frederick
Director of Research, Evaluation, and Analysis
Department of Public Welfare

Rollaston, Mr. Thomas
Employer
T. R. Rollaston, Inc.

Rood, Mr. Harold
Director
Reading-Muhlenberg AVTS

Rosenfield, Ms. Sandra
Counselor
Dobbins AVTS

Runkle, Dr. Robert
Director
Berks County AVTS--West

Russell, Ms. Barbara W.
Coordinating Supervisory Instructional Specialist; Home Economics, Cosmetology, and Health Professions
Pittsburgh Public Schools

Schuerle, Mr. Edward
Administrator
South Vo-Tech High School--Pittsburgh

Seidel, Ms.
Vocational Teacher
New Hope-Solebury Junior-Senior High School

Selders, Mr. Gill
Department of Labor and Industry
Bureau of Vocational Rehabilitation

Shekdar, Ms. Linda
Grants Coordinator
Community College of Alleghany County

Shoemaker, Dr. Elwood
Executive Director
Commission on Community Colleges

Shore, Mr. Leon
Philadelphia Federation of Teachers

Skinner, Mr. Richard
Associate Dean, Career Programs
Bucks County Community College

Smyrl, Ms. Diana
Vice President for Institutional Advancement
Community College of Alleghany County

Snyder, Mr. Lamar
Director
Bucks County AVTS

Spewock, Dr. Michael
Teacher Educator
Indiana University of Pennsylvania

Stahl, Mr. Benjamin
Advisory Committee--Philadelphia

Stevens, Dr. Patricia
Assistant Dean for Academic Affairs for Math, Engineering, and Technology
Harrisburg Area Community College

Stone, Mr. Paul
Program Specialist for State and Federal Programs
Blast Intermediate Unit #17

Stroup, Mr. Senson
Executive Director
Pennsylvania Association of School Administrators

Sussna, Ms. Deborah
Placement Director
Bucks County Community College

Swaincott, Ms. Helen
Chief, Health Education
Pennsylvania Department of Education

Swatt, Mr. Ken
Vocational Planning and Approval Service
Pennsylvania Department of Education

Syphard, Mr. John
Principal
McCaskey High School

Trynosky, Mr. Joseph L.
Director
Lancaster County AVTS--Willow Street

Tyrrell, Mr. Robert
Personnel Director
Acme Trailers

Ulrich, Mr. Alfred D.
Coordinating Supervisory Instructional Specialist for Technology, and T&I
Pittsburgh Public Schools

Vozella, Ms. Delores
Berks County

Walker, Dr. Robert
Western Regional Office

Wall, Dr. Donna
Commissioner of Basic Education
Pennsylvania Department of Education

Weiss, Dr. Susan
Home Economics Education
Pennsylvania State University

Welch, Dr. Frederick G.
Professor, Industrial Education
Pennsylvania State University

Whisner, Ms. Jane
Director, Instructional Programs
Indiana University of Pennsylvania

White, Ms. Wilhelmina
Coordiantor, Vocational Support (LEP)
Philadelphia City Schools

Wiegman, Ms. Pamela
Teacher on Special Assignment
Pittsburgh Public Schools

Winters, Dr. Thomas
Section Supervisor, Bureau of Vocational and Adult Education
Pennsylvania Department of Education

Woodbury, Dr. Kenneth B., Jr.
President
Harrisburg Area Community College

Young, Dr. Gary
Pennsylvania Association of Colleges and Universities

Younger, Mr. Clark M.
Supervisor, Industrial Education
Philadelphia City Schools

Zervanous, Dr. Stam. M.
Director, Academic Affairs
Pennsylvania State University--Berks Campus

Zogas, Dr. Gust
President
Reading Area Community College

CHAPTER 7

POLICY DELPHI MEETING AND PARTICIPANT LIST

Fifty-two people were invited to the Policy Delphi meeting held in Harrisburg on February 10, 1989. Thirty individuals responded affirmatively and 28 of these actually attended the meeting. Representation was as appears in the table 1. The figures total more than 28 and 52 because some of the individuals represented more than 1 group.

Three criteria were used to select individuals invited to the Policy Delphi meeting: geographical spread, organizational representation, and innovativeness or thoughtfulness of responses on the second round of the Delphi questionnaire. The table 1 provides a breakdown by organizational affiliation of individuals invited to attend the meeting.

The individuals who attended the meeting were divided into three groups that rotated within and between the three project staff members. The duties of the project staff members were to initiate discussion, keep discussion on topic and moving, and take notes of what was discussed.

Following is a synthesis of comments made at the Policy Delphi meeting. The comments are organized by general topic.

Secondary Teachers

- Secondary vocational-technical teachers are not prepared to reinforce basic skills. The 60 credit hours required of nonbaccalaureate teachers can't contain everything.

TABLE 1

GROUPS REPRESENTED AT POLICY DELPHI MEETING

Group	Number Attending	Number Invited
Postsecondary education	8	10
teacher educators		
teacher center educators		
miscellaneous		
community and technical colleges		
Secondary education	17	34
AVTS directors/directors of vocational education		
high school principals		
intermediate unit directors		
large-city directors of vocational-technical education		
school board representatives		
teachers		
superintendents/assistant superintendents		
guidance counselors		
miscellaneous high school personnel		
vocational advisory council		
Economic development authorities	1	1
Professional associations	5	7
Business/industry/labor	2	5
Chamber of commerce	0	1
JTPA	0	2

The modules used don't provide adequate feedback; teachers need more pedagogical preparation. Vocational-technical teachers come from a different background and to force them through the same program may be unwise.

- An occupational skill is easier to acquire than the ability to teach, especially to teach basic skills. The language of an occupation can be learned in a classroom. This is not to say that work experience is not important, but perhaps not as necessary as solid pedagogical skills.
- Degrees are only as good as the programs they represent. The answer may be to improve the programs, both traditional and inservice.
- Secondary vocational-technical education teachers also are not provided enough information/course work on how to understand and motivate youth or how to deal with "slow" students with low IQs.
- Many secondary vocational-technical education teachers will retire in the near future. New teachers generally are in their mid-30s. Typically, secondary vocational-technical education teachers are older when they begin to teach. This can make obtaining a baccalaureate degree more difficult.

It is difficult to provide adequate supervision of new teachers at AVTSs because, due to tight budgeting, not enough administrative personnel is available.

- New teachers need to have mentors. However, the guidelines for a mentoring program that was being used were constantly changing. The legislation mandating staff development was believed by some participants to be bad.
- Universities are inflexible. Vocational technical teacher education must be flexible.
- All vocational teachers must have an intimate knowledge of the industry. To help keep current, teachers should supervise co-op programs.
- Perhaps vocational-technical education teachers should enroll in a traditional teacher education program with a heavy industrial emphasis, including structured internships.
- Vocational-technical education teachers at the secondary level should be generalists who can teach across disciplines. However, the average T&I teacher begins teaching at age 40.
- Industry could be offered tax incentives to induce them to allow some of their staff to teach short-term (1-3 months) in public secondary or postsecondary schools.
- The leadership pool for vocational-technical education needs to be developed. If the baccalaureate degree is not required for T&I teachers, the leadership pool is greatly reduced.
- The mentoring/cooperating teacher program used at Indiana University of Pennsylvania should occur all over the state.

- Team teaching is great if the number of students is large enough and the schedules can be coordinated.

Economic Development

Educators and employers must work together more closely.

At the high school level, should teachers be educating youth or training adults? It's difficult to mix adults and youth in one class because the instruction comes from a different philosophical base. It's easier to mix adults with high school seniors than with younger students.

Trying to meet the needs of business and industry is frustrating. There is a conflict between what business and industry says it needs and what students can/should learn. What are reasonable expectations?

Job specific training is a strength at the secondary level; however, students find it difficult to choose an occupation with the amount of information they have been provided.

Career and Vocational Education Curriculum

The strongest programs involve a mix of academic and vocational teachers who work together for the common goal of educating students.

Vocational-technical education must have a broad, rather than specialized, curriculum at the secondary level. A database containing information on job market needs is lacking.

It is foolish to have students make a career decision in grade 9. Career education should begin in grade 1. Not all students are ready at the same age to choose a career.

General education at the secondary level should be dropped. Vocational education, as well as career education, should begin very early.

Counselors are gatekeepers who schedule the "best" students into academic courses and special needs students into vocational-technical education. Counselors must be knowledgeable about vocational-technical education.

All educational experiences should be related in an obvious, structured way.

Vocational-technical education curriculum should be competency based.

Students should be *very* familiar with AVTSs and their programs, before making a curriculum choice.

An integrated academic and vocational curriculum is the most desirable option, but it is difficult to achieve because each AVTS receives students from so many different sending schools.

Career education and hands-on technical orientation should be offered in grades 9, 10, and 11. In grade 12, students should be sent to AVTS and kept there for grades 13 and 14. Low interest loans should be available for students in grades 13 and 14. Using open-entry, open-exit makes more sense than clock hours to define a program. Some programs, in general, don't take as much time as others.

Career awareness is important. Students need to know what is available and the potential for career advancement, as well as how to move up.

The mentality that a student must be either vocational or academic is too narrow. Students should be able to take the courses they need/want.

The ability level, not the age level, should determine what a student is taught.

Only 13.6 percent of students in Pennsylvania actually receive college degrees. Yet, academic requirements are so heavy for secondary students that it's becoming increasingly difficult for them to complete vocational programs.

Leadership

State-level initiatives for curriculum or staff development have not been issued. People are constantly reinventing the wheel. The staff-level employees should provide staff development models, lists of resources, and curriculum. The state should not mandate curriculum, but should make good curriculum available.

The state should be providing an effective curriculum model that integrates academic and vocational subjects.

The lack of leadership stems from levels higher than the Bureau of Vocational and Adult Education.

The role of vocational-technical institutions has not been clearly defined by state leadership.

The state should set an agenda for vocational-technical education at all levels. Currently, there is too much political maneuvering with too little concern for education. The effects decisions have on education are not considered.

Vocational education does not prepare students to make career choices? The state must provide leadership and coordination in this area.

All graduate students in education should be required to take a specified number of hours or course(s) in vocational-technical education. Local leadership and potential state leadership should be familiar with the concept and workings of vocational-technical education.

The state should be very "loose" regarding structure and governance but very strict/specific regarding requirements.

The R&D center would help the state provide leadership by researching topics and innovative ideas and providing exemplary curriculum.

Leadership is not really an issue of local versus central control. It's an issue involving the consistent application of rules and regulations. Currently, rules and regulations are not consistently interpreted and applied across the three regions.

Either the general population doesn't understand vocational-technical education or thinks it is for someone else's children. The state should take a leadership role regarding the image of vocational-technical education at the secondary and postsecondary levels. The image must be improved. The public must become aware that vocational-technical education at the secondary level does not preclude postsecondary education.

Currently, the state is not doing a good job of identifying exemplary programs. The criteria for such a designation must be improved. The research staff of the R&D center could develop exemplary programs in cooperation with field-based programs.

Salaries at the state level are to low to attract and keep the very best people. Titles, image, and salaries do matter.

The real key to support for vocational-technical education is the Secretary of Education. If the Secretary of Education was truly committed to vocational-technical education, a commissioner position for vocational-technical education would not be necessary. However, education goals have been subverted to political ends, and the Secretary is a political appointee.

Creating the position of commissioner of vocational-technical education might separate it further from other parts of education. The current structure isn't working, however, because it does not ensure coordination and cooperation. Could it be reformed?

What is the role of the head of the Bureau of Vocational and Adult Education if not to be an advocate for vocational-technical education?

The 27 regional office staff should be moved back to the main office in Harrisburg and their mission/duties should be redefined. Currently, the staff is "shuffling papers" when they could be providing technical assistance. The function is more important than the location; that is, it would be better to have this staff at the main office providing technical assistance than at the regional offices shuffling papers.

Funding

The state should provide more funding at the secondary vocational education level. Community colleges that offer technical programs receive $1,000 more per student enrolled in those programs.

Giving taxing authority to AVTS structure will be met with great resistance.

The state should fund AVTSs directly. As the funding formula currently stands, the sending schools perceive sending students to an AVTS as a financial disincentive, even though the state pays all excess costs. Schools can restrict who goes to the AVTSs with scheduling manoeuvres, counseling, added requirements.

The facilities and equipment maintenance and update budgets should be increased at the secondary level. Except for Act 107, money for secondary schools comes from local sources, whereas community colleges are reimbursed 50 percent of equipment costs by the state.

When a community college offers AVTS adult evening programs, the programs generate FTEs for the community college. Hence, money goes to the community college rather than being equitably divided.

Governance

Institutions are resistant to working together. They don't trust each other and are busy defending their budgets. Institutions must play by the same set of rules and be treated equitably.

Cooperative local (regional) governance should be legislated and tied to funds. Housing a vocational-technical education person in the intermediate units won't work because (1) intermediate units are dedicated to working with secondary not postsecondary and (2) a state of paranoia exists regarding placing vocational-technical education staff in the intermediate units.

Every AVTS should become a technical institute and serve adults.

AVTSs should be governed by the intermediate unit (IU) structure.

Governance structure should promote secondary to postsecondary articulation.

Participant List

Adamsky, Dr. Richard
Coordinator
Vocational Education Programs
Temple University
Ritter Hall Annex
Philadelphia, PA 19122

Baillie, Dr. John K.
Executive Director
Chester County Intermediate Unit #24
150 James Hance Court--Oaklands
Exton, PA 19341

Brezeale, Mr. C. P.
AT&T Micro Electronics
P.O. Box 13396
Reading, PA 19612-3396

Brown, The Rev. Dr. William
Lancaster School Board
225 W. Orange Street
Lancaster, PA 17603

Burley, Dr. Richard
Director
Lancaster, Co. AVTS
1730 Hans Herr Drive
Willow Street, PA 17584

Colaneri, Mr. Joseph J.
Director of Vocational Education
East Mongomery County AVTS
175 Terwood Road
Willow Grove, PA 19090

Curtis, Dr. Samuel M.
Head, Agriculture and Extension Education
Pennsylvania State University
102 Armsby Building
University Park, PA 16802

deLone, Mr. Richard
deLone and Kahn Associates
Suite 807
1518 Walnut Street
Philadelphia, PA 19102

Derstine, Mr. Leroy
Director of Vocational Education
Bradford Area School District
50 Congress Street
Bradford, PA 16701

Dumaresq, Mr. Richard R.
Executive Director
Pennsylvania Association of Private School Administrators, Inc.
229 S. Fourth Street
Steelton, PA 17113

Enck, Mr. Dorsey
Pennsylvania School Boards Association
774 Limekiln Road
New Cumberland, PA 17070

Hershberger, Mr. Ronald D.
Director of Vocational Education
Keystone Central AVTS
95 W. Fourth Street
Lock Haven, PA 17745

Houck, Mr. Terry
Tuscaroa Intermediate Unit #11
R.D. 1, Box 170A
McVeytown, PA 17051

Karns, Mr. Dean W.
Director of Vocational Education
Western AVTS
R.D., Box 178-A
Canonsburg, PA 15317

McNeil, Mr. George H.
Wissahickon Senior High School
Houston and Dager Roads
Ambler, PA 19002

Monaco, Dr. Fred
Director
Career and Vocational Education
Occupational Vocational-Technical Center
635 Ridge Avenue
Pittsburgh, PA 15212

O'Brien, Dr. Thomas
Center for Vocational Personnel Preparation
Indiana University of Pennsylvania
Reschini House
Indiana, PA 15705-1087

Ozga, Mr. Robert
Teacher
Wissahickon Senior High School
Houston and Dager Roads
Ambler, PA 19002

Pellegrino, Dr. James P.
Department of Instruction and Learning
University of Pittsburgh
4M21 Forbes Quadrangle
Pittsburgh, PA 15260

Rhen, Mr. Dennis P.
Executive Director
Pennsylvania Council on Vocational Education
Harrisburg Transportation Center
415 Market Street, Suite 2-B
Harrisburg, PA 17101-2302

Ruckle, Mr. Robert A.
Director
Berks Vocational Technical School
Administrative Office
R.D. 1, Box 1370
Leesport, PA 19533

Shoemaker, Dr. Elwood A.
Executive Director
Commission for Community Colleges
800 North Third Street
Harrisburg, PA 17102

Stammel, Mr. Ronald
Director
Dauphin County Technical School
6001 Locust Lane
Harrisburg, PA 17109

Varano, Dr. Samuel P.
Assistant Superintendent
Governor Mifflin School District
Box C750, 10 South Waverly Street
Shillington, PA 19607

Weiss, Dr. Susan F.
Professor in Charge, Home Economics Education
Pennsylvania State University
212 Rackley Building
University Park, PA 16802

Young, Mr. Gary B.
President
Pennsylvania Association of Colleges and Universities
800 N. Third Street
Harrisburg, PA 17102

Zarone, Mr. Arthur R.
Director of Vocational Education
Lawrence County AVTS
750 Wood Street
New Castle, PA 16101

CHAPTER 8

EXTERNAL REVIEW PANEL MEETING

External Review Panel

Dr. Lola Jackson
State Director of
Vocational Education
Michigan

Dr. Gene Bottoms
Southern Regional
Educational Board
Georgia

Dr. Bernard Fereri
Community Colleges
of the City of Chicago
Illinois

Project Staff

Dr. Floyd L. McKinney
Project Director
CETE
The Ohio State University
Columbus, Ohio

Dr. Sally A. Sutter
Educational Consultant
Mediation and Career
Development Services
Hollidaysburg, Pennsylvania

Ms. Paula K. Kurth
Project Staff
CETE
The Ohio State University
Columbus, Ohio

On February 11, 1989, the external review panel members met with project staff to discuss and critique the recommendations that had been developed. Panel members were sent a copy of the recommendations to review prior to the meeting. Dr. McKinney, as project director, chaired the meeting held in Harrisburg, Pennsylvania. Comments of the review panel follow:

- Recommendations concerning economic development should be included.
- Document the fact that vocational education students are not receiving adequate academic preparation.
- Define, in 3-5 pages, the problems of vocational education at the secondary and postsecondary levels. State clearly and explicitly what the problems are.
- Emphasize funding of and authority and responsibility for vocational education.
- Use data to back up recommendations in the final report.

- Take some major risks. Even if some stances/recommendations are not "popular," make them if, in your best judgment, they need to be made. The integrity of the study must be maintained through honesty.

- The recommendations do not yet clearly define the roles of secondary and postsecondary education.

- Quality vocational programs can't exist without a quality academic program. "General math doesn't cut it."

- Employment as well as the ability to continue to learn should be the measures by which vocational education is evaluated. Redefine the vocational program of study.

- Delete alternative recommendations.

- Resequence recommendations so they "flow" more smoothly for the reader.

- An R&D center can't make up for a weak state department.

- Accountability and responsibility issues at the local level are not addressed.

- Vocational education in any state needs a strong state director and a sense of direction.

- The R&D center should be responsive to the state director.

- Merge recommendations 4 and 13. (Establishment of an R&D center should incorporate functions of teacher education centers and regional offices.)

- The funding currently going to the regional offices could be used to fund regional planning. Regional planning staff could be housed at a technical institute.

- A mission statement for vocational-technical education should include (1) its purpose at the secondary as well as postsecondary levels, (2) a definition of a vocational concentrator, and (3) outcome standards to use for determining accountability.

- Emphasize the academic inadequacy of general education at the secondary level to solve the academic deficiencies of vocational-technical education students. The "academic sector" must address these needs and contribute to their resolution.

- Michigan offers math remediation courses at its AVTSs and is retraining vocational education teachers to teach math.

- The recommendations are too "wordy" and should be more concise.
- The strengths and weaknesses listed for each recommendation should be omitted.
- The commonwealth should first decide on the image of vocational-technical education it wants to project and then market it.
- Include adult vocational education in a more obvious way.
- Pennsylvania should have a council for vocational-technical education that is made up of members from both basic education and higher education.
- Technical institutes could comprise the 13th year of secondary vocational-technical education. Or, branch campuses could be housed at technical institutes to offer the academic courses for an associate degree.
- AVTS districts should be created. The governing board for these districts should be composed either of representatives from the sending schools or individuals elected by the voters of that district. This board should have taxing authority and receive the funds directly.
- Are AVTSs contributing to the economic development of Pennsylvania? Why or why not?
- Michigan allotted a period of 8 years for all secondary vocational-technical education instructors to obtain baccalaureate degrees. "Grandfathering" did not occur.
- The problems facing all of secondary education and all of postsecondary education should be discussed.
- Speak to the current strengths of the system--incorporate them.
- The academies in Philadelphia should be kept small and nurtured.
- The delivery system should provide for equity and access, versatility and diversity.
- The comments on articulation and coordination between secondary and postsecondary institutions should be expanded.
- Secondary and postsecondary institutions should share facilities, equipment, and advisory councils.

CHAPTER 9

CALENDAR OF ACTIVITIES/EVENTS

October 3-15, 1988

Floyd McKinney
Sally Sutter
Paula Kurth

Conducted interviews in Pennsylvania.

October 13, 1988

Floyd McKinney

Met with State Board of Eduction Task Force.

November 7-11, 1988

Floyd McKinney
Paula Kurth

Conducted Interviews in Pennsylvania.

November 9, 1988

Floyd McKinney

Met with Task Force.

November 14-18, 1988

Floyd McKinney

Met with Michigan Department of Education officials and principals and teachers.

November 16-17, 1988

Sally Sutter

Conducted interviews in Pennsylvania.

December 6, 1988

Sally Sutter

Conducted interviews in Pennsylvania.

December 9, 1988

Sent out first-round Delphi survey

December 11-16, 1988

Paula Kurth

Gathered information from New York Department of Eduction officials and principals and teachers.

December 15, 1988

Floyd McKinney

Met with Task Force.

January 9-12, 1989

Floyd McKinney

Met with Task Force.
Conducted interviews in Pennsylvania.

January 20, 1989

Sent out second-round Delphi survey.

February 8-12, 1989

Floyd McKinney
Sally Sutter
Paula Kurth

Presented tentative recommendations to Task Force.
Held Policy Delphi meeting.
Met with external review panel.

March 6-8, 1989

Floyd McKinney
Sally Sutter
Paula Kurth

Presented interim report to Task Force, State Board of Education, and Executive Committee of the Pennsylvania Association of Colleges and Universities.

April 13-14, 1989

Floyd McKinney

Critique in process draft of final report.

May 2-3, 1989

Floyd McKinney
Sally Sutter

Reviewed final draft of final report.